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INTERNATIONAL MEDICAL CONGRESS.

Medicine. Past and present, in Russia.
1897.

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The Twelfth International Medical Congress.

(MOSCOW, 1897.)

MEDICINE. PAST AND PRESENT, IN RUSSIA.

I.

Introductory.

MOSCOW will shortly be the scene of an International Medical Congress, the twelfth of those great meetings which are successively held in different countries, and which will now gather for the first time on Russian soil. With Russia for the time being the centre of the medical world it seemed not unlikely that a description of some of her medical institutions would prove as interesting as it could not fail to prove instructive. It was with the object of describing these as they now are in the present year of grace that the following articles had their inception. It soon, however, became clear that the existing condition of medical institutions in this most interesting of countries could only be properly understood by treating them historically and tracing them up from their earliest origins to their present state of advanced development. The original scheme of the articles had in consequence to be much expanded. But, as though in compensation, a large number of facts and incidents in the history of medicine in Russia were brought to light in the course of this investigation into the little known records of the past, which cannot, we believe, but prove of real interest to English members of the profession and, more particularly, to those who intend to take part in the Congress in Moscow. These alone appeared to justify the more expanded treatment of the subject.

To Englishmen there are, indeed, many striking features in this history. Firstly, English medical men have played a not unimportant part in the introduction and improvement of the medical arts in Russia. Among the foreign medical graduates who have from time to time entered the Czar's service our own countrymen have always held a leading, and at one time held quite the first, position. It seems but right at the present moment that the names of these half-forgotten worthies should be resuscitated from the English and Russian records of their times; that their interesting and, in some instances, historically important experiences should again be briefly told; and that due prominence should be given to the generous treatment they invariably received from their Imperial patrons. Should the part played by Englishmen seem to be brought duly forward in the following

pages the excuse must be that this was almost inevitable in articles intended for English readers, and that no discourtesy is thereby implied to the memory of the many medical worthies of other nationalities who may have filled equally important positions, but whose stories are more briefly told.

A second striking fact in the history of medical institutions in Russia is one which is common to the history of almost all institutions in that country. No English historian of Russia has failed to notice the contrast between the growth of institutions in the two countries. With us they have usually originated in the initiative of private individuals or communities, who have only ultimately gained for them the recognition and approval of the State. In Russia this course of events has been usually reversed. There the Czar, as the *Batushka* or "little father" of his people, has in times past usually summoned from abroad cunning artificers, physicians, surgeons, and men of learning, and with their aid has planned and organised professional or other institutions, and trained the people to a recognition of their value and use. In one case the impetus has been from below upwards, in the other case from above downwards. Each method has had its advantages. Each course was, perhaps, inevitable from the history, geographical position, and national characteristics of the two peoples. And, so far at least as concerns the particular group of institutions which will here be considered, each has ended in providing the country with a series of such institutions and a private and public medical service of the nature best adapted to meet its needs. It is not intended here to compare the wants of the two countries or the way in which they are provided for; but it may be said in passing that few capitals in Europe can show a more perfect series of hospitals, laboratories, and other medico-scientific establishments than may be found in St. Petersburg and Moscow; in a word, nowhere are the needs of scientific medicine more fully recognised or more generously satisfied than in the Russian capitals. Of the truth of this statement visitors to the Congress will have ample opportunities of judging for themselves, for, with the courtesy characteristic of our Russian *confreres*, the medical institutions of both cities

will be thrown freely open to the inspection of all members of the Congress.

A no less interesting object of study than the provision for the medical wants of the capitals is presented in the country districts of Russia by the efforts of the *zemstvos*, or local administrative bodies, to provide the peasants with a system of free medical aid. Finally, there is the immense machinery of state medicine and the public health service forming a vast bureaucracy, with a Medical Council and Medical Department at the head, all of which present characteristics worthy of study. In this connexion attention may be called to the fact that the present Medical Department is a direct descendant, without a break, of the old Court *Apteka*, or Dispensary, which was probably first instituted by an English apothecary late in the sixteenth century.

The information upon which the following notes upon medicine, past and present, in Russia are based has been gathered from a variety of sources. The historical facts have been taken from contemporary records, both Russian and English, from historical works in both languages, and from numerous pamphlets and articles in Russian periodicals, to enumerate which would serve but little purpose. The light thus cast upon one of the by-paths of history, hitherto ignored by the general historian, appears to throw no little reflected light upon the broader and more trodden paths. The description of the medical institutions of to-day is based as far as possible upon actual observation and documentary evidence; but for much supplementary information it is our pleasant duty to express our sincere thanks to many of our Russian *confères*; to Professors Klein, Erismann, Diakonof, Roth, Pospîlof, and Filatof of Moscow; to Professors Pashutin and Sklifosovski, and Dr. Ragozin of St. Petersburg; to Dr. Isaief and Dr. Dobrotvorski of Cronstadt; and finally to His Excellency Count Delyanof, the Minister of Public Instruction, and his secretaries, Messrs. Latyshef and Anitchkof, for details and statistics relating to the universities and medical education in Russia.

II.

The Earliest History of Medicine in Russia.

THE first chapter of the history of medicine in Russia opens at a period when—if the bull be permitted—medical science as such did not exist. Its germs were there, however. Even so early as the arrival of the more or less mythical Rurik, from which the history of modern Russia usually dates, its traces may be found. Such knowledge of the healing art as then existed was entirely in the hands of the *Koldunui* and *Volkhevi*, the *Kudesniki* and *Viédunui*—the wizards and wolf-men, the sorcerers and seers—grey-haired old men who wandered about in woods, who expounded the cult of the Pagan religion, who transmitted the ancient traditions and laws from generation to generation, and who were prophets, seers, chiromancers, and magicians. This was in the early centuries of the Christian era,¹ when the Russian country and race first appear in definite outline on the page of history. It is tempting to recur to a still earlier period, when Russia was inhabited by a race of whom scarcely an outline remains, if only for the fact that among the dim traces which time has spared of them is a record pointing clearly to their knowledge of the art of surgery. Of the Scythian race, their origin and history, comparatively little is known; but of their customs and arts much has been learned from the superb collection of Scythian relics recovered from the tombs of Kertch and southern Russia generally and now preserved in the Hermitage in St. Petersburg. In this collection, which consists for the

most part of personal ornaments and vases of gold or other metal, is a small vase made of the combination of metals known as electrum. This beautiful little object was found in a tomb at Koul-Oba, and is generally known as the Koul-Oba vase. It is considered by experts to be of Greek workmanship, but the figures which it bears are purely Scythian. The vase is ornamented with three groups of figures in *repoussé*, and all three of these are of curious interest. (Fig. 2). In the first a Scythian chieftain is seated and listening to the advice of a kneeling figure, which has been conjectured to represent a *volkhva*, or "wolfman." This group may, therefore, in view of the character of the two others, without any great stretch of the imagination be regarded as representing an early Scythian medical consultation. In the second group a Scythian is examining with his fingers the teeth on the left side of the jaw of another, who appears to be the same chieftain as that

FIG. 1.



The Koul-Oba Vase.

represented in the first group. In the third the same two figures again recur, but in this instance the chieftain has evidently been wounded in the leg, which the surgeon is binding with a long bandage. Now, in examining the chieftain's skeleton found in the tomb from which this vase was taken a curious fact was brought to light. Two teeth in the left side of the jaw were wanting, and around the third, which was diseased, were signs of inflammation of the bone. In addition, the bones of the left leg are said to have shown traces of injury. It seems almost certain, then, that the incidents depicted on the vase were really important ones in the life of this forgotten Scythian chieftain. It were pleasant, did space permit, to linger on this interesting little relic, and to dwell upon the accuracy of detail and the vividness with which the actions are represented. It is the perfection of realism—a realism in no way destroying, but rather enhancing, the decorative effect.

The peculiar and unusual character of the groups just described has led to some speculation as to the purpose for which the vase they adorn was originally intended. That it was meant for some purpose more or less closely connected with medicine seems probable, and a suggestion has recently been made that it originally contained some poison. There is evidence that among the Scythians when a chieftain was buried his wife, his horse, and several slaves were buried alive with him in the same tomb. The Koul-Oba vase was found close to the remains of the chieftain's wife, and it has been thought that it may have contained a poison humanely put within her reach to enable her to put an end to

¹ Rurik is thought to have gone to Russia in 862.

her sufferings. This for the present remains an open question. Dr. Zmčief tried quite recently to throw some further light on the matter. He obtained some scrapings from the dried crust which lines the vase and submitted them to chemical and microscopic examination. He was able to determine that they contained neither opium nor arsenic, but apparently came to no positive conclusion as to their composition.

Nearly 1200 years elapse between the date of the Græco-Scythian relic found in the Koul-Oba tomb² and the time of Rurik. During the interval history is almost silent. On matters relating to medicine she is absolutely silent. It is only after the "Norman Conquest" of Russia, in the year 862 A.D., that the story again takes definite shape, and known historical characters begin to replace the more or less mythical heroes of the earlier period. As the mists clear away the warrior princes are naturally the first to take outline. But next to them there are no figures which become so clearly defined as those of the grey-haired sages already briefly described. Russian writers have loved to dwell upon them, to paint them as men of real dignity and sometimes of sublime independence—tall grey figures wandering in the

"grey-haired *Koldoun*" is a familiar figure to all readers of Russian national literature.

In the tenth century Christianity was introduced into Russia. It came from Byzantium, and with it came such knowledge of medicine and the other arts as Byzantium then possessed. There, as elsewhere in Europe, the care of the sick was part of the duty of the monastic profession. The earliest Russian monastery was the famous Petcherskaia Lavra, or Monastery of the Caverns, in the newly-built capital of Kiev. The earliest monks in Russia came direct from Mount Athos, where St. Athanasius had built a hospital for the sick. They carried with them the medical knowledge they had there gained, and the Petcherski monks soon became famous for their skill in treating disease. The names and reputation of a few individual monks are still preserved in the monastic chronicles. Anthony, a St. Athos monk, was considered a marvellous physician; Alimpi was reputed to cure leprosy by means of an ointment; Agapit, a pupil of Anthony, worked wonders with his *zelié* or simples, not only among his brethren, but among the laity. This last monk is the hero of an amusing tale of rivalry between himself and a lay "doctor," an

FIG. 2.



A Diagram representing the groups of figures on the Koul-Oba Vase. (Like Fig. 1, this illustration comes from a picture in Mr. A. Maskell's work "Handbook on Russian Art.")

untouched forest and culling simples on the banks of the Dnieper or the Bng, where doubtless they learned something of

"the powerful grace that lies
In herbs, plants, stones, and their true qualities."

Not infrequent references to them and their knowledge may be found in the *Buillnui*, those interesting and (to Englishmen) too little known national epics, which sing the deeds of knights and heroes, real and mythical—of Vladimir the Great in his white-walled city of Kiev and of his warriors ever seeking fresh adventures in the open field. In "*Ilia Murometz*"—the most popular of these epics—Ilia lies for thirty-three years in sloth and impotence, until the seers or wizards give him a honeyed drink. He drinks a "bucket and a half," and all his strength returns, and he is enabled to go into the arena and overcome the monster Solovei, whom he brings bound to his stirrup to the very courtyard of the Prince Vladimir's palace. It was a *kudesnik*, "beloved of the gods," who stopped King Oleg in a dark forest and foretold to him the strange manner of his death. The legend is told in one of Pushkin's best known poems. But it is needless to multiply instances; the

Armenian, who settled in Kiev, and there practised medicine with no little success. The layman treated the highest *boyars* and even the Prince Vsevolod himself. On one occasion he was summoned to attend the Prince's favourite *boyar*, but finding him apparently beyond recovery he declined further to treat him. He told him that he had but eight days to live. The *boyar* in despair sent for Agapit, who gave him his usual simples, and in the end the great man recovered and the monk was covered with glory. The Armenian was furious with jealousy and a very pretty quarrel began between the two practitioners. At last the Armenian hit upon a plan by which he hoped to ruin the other. He obtained a condemned criminal, gave him some poison, and sent him as a patient to Agapit in order that he might die before his eyes and in spite of his treatment. But the plot failed. The monk recognised that the man was poisoned, gave him some antidote, and saved his life, thus further increasing his reputation. The quarrel then became still more acute. The famous Prince Vladimir Monomakh (it was he who married Gytha, the daughter of our own Saxon King Harold) had been long treated by the Armenian without success. Again the monk stepped in and cured the patient by merely sending him his herbs! But at length Agapit

² The vase is ascribed by experts to the fourth century B.C.

himself fell ill and was visited by his rival. A medical discussion began, and ended with the Armenian exclaiming contemptuously: "This man knows nothing of our art." He took the hand of the monk (perhaps to feel his pulse) and told him he would die in three days. "That is your way of treating disease, is it?" said the other. "You have more to say about death than about helping me. I tell you my death will not come in three days, but in three months." And so it did—a fact which seems to have so struck the Armenian that he at once joined the Church and became a monk in the same monastery. The story, with its series of triumphs of ecclesiastical over lay medicine, and its characteristic ending (it is told by a Petcherski monk), is of interest in more ways than one. Among other things it shows that in the eleventh century poisons and antidotes were known and used; and also as Professor Zagoskin (from whose book it is here quoted) rather quaintly remarks, "because it shows that even then methods of competition between rival practitioners were in vogue not in consonance with their high calling and with the demands of what we now call 'medical etiquette.'"

With the coming of Christianity and the Byzantine monks the fate of the ancient sages and wizards was sealed. The new Church entered into a fierce persecution of the whole race of *kudeshniki* and their allies. They sent them to the gallows or the stake and pronounced the practice of magic or sorcery a crime against the true faith. In the Statute of Ecclesiastical Courts, published by Vladimir the Great, himself the first Russian ruler to be baptised, *zelenitchestvo* is declared to be a specific crime, and as this term appears to have meant the use of *zelié* or simples, the clause was probably a blow aimed at the heathen professors of medicine generally. But the lay art did not die easily. The seers and the system they represented were too firmly rooted in the country and in the hearts of the people to be eradicated in a day. It may even be questioned whether they have ever become quite extinct. The "grey-haired *Koldoun*" may no longer exist as such, but in all essentials he is alive to this day. The *znakhars* and *znakharka*, the "wise man" and "wise woman," to whom the Russian peasant still turns in cases of illness and misfortune, are the direct representatives of the ancient wizards and sages of the time of Vladimir. They are still believed to possess a mysterious power and skill in the healing of disease, and there is still a widespread faith in the superior virtues of their wonderful simples over all the drugs in the Pharmacopœia.

It will have been noticed from the story of Agapit and the Armenian that so early as the eleventh century a class of foreign practitioners was in existence in Russia. In that and the following centuries incidental mention is not infrequent of foreign physicians and their treatment. It has been conjectured that they came from Byzantium and possibly also from Arabia. These lay practitioners were of no little repute. They were to some extent opposed by the monks, but they were powerfully protected. The princes and *boyars* preferred their services to those of the monks, which they left to the lower classes. The monks always refused payment for their treatment, but the laymen were paid and apparently well paid. In the oldest code of Russian laws in existence—that of Yaroslav, compiled in 1018—a person wounded in an assault, in addition to receiving three *grivnas* compensation from his adversary, was entitled to one *grivna* for the practitioner's fee. A *grivna* was the third part of the price of a horse in those days. Of the nature of the medical practice at that time and of the remedies employed almost nothing is known. Surgical interference in certain cases was, it seems, sometimes resorted to. In 1076, two days after Christmas Day, Prince Sviatoslav³ died from the "cutting of a

tumour" or of some form of local induration or swelling. Very much later a certain Prince Dmitri was treated for bleeding at the nose by means of plugging the nostrils. Hospitals, or rather infirmaries for the disabled, were also in existence, and mention is made in 1091 of a bathing establishment in Pereyaslav, though whether for medicinal or merely for cleansing purposes is not clear.

Early in the thirteenth century Russia was conquered by the Tatars, and during the next two and a half centuries of rapine and war there was of necessity almost complete cessation of the practice of the peaceful arts. Such medical art as there was at this period was entirely in the hands of the monks, who were generally spared by the Tatars. This miserable period came to an end in the time of Ivan the Third, whose reign from 1468 to 1505 is an important one in many ways. He was the first Russian ruler who took the title of Czar. He married the Byzantine princess Sophia Paleologos, and in her suite there came to Russia many refugees from the capital on the Bosphorus, which had only recently fallen into the hands of the Ottoman Turks. The result was a general revival in Russia of all the arts—a revival for which the overthrow of the Tatar supremacy had paved the way, and which was still further stimulated by the advent of the more cultured Byzantines. Among the arts which shared in the renaissance was that of medicine. Foreign physicians were invited to settle in Moscow, which had long before become the capital, and several did so. Presumably some high inducement was held out to attract them; for to enter the service of the Russian autocrat of those days was to run no little personal risk. The fate of the first two foreign doctors who arrived in Moscow could scarcely have been encouraging to those who followed. Their histories are worth quoting briefly.

The first to enter the service of Ivan was one Anthony, a German, who came to Moscow in 1483. He was in high favour with the Prince, but even that could not save him. Only two years after his arrival he was ordered to treat a Tatar prince who was then in Moscow. He failed to cure him, and, in accordance with what seems to have been the pleasing custom of the age, was handed over to the relations of the dead prince to be dealt with at their will. The Tatars dragged him to the banks of the Moskva River, and there "cut his throat with a knife like a sheep!" Five years later Master Leo,⁴ a Venetian Jew who with other artificers had been brought to Moscow through the Byzantines, was commanded to treat the son of the Grand Duke himself. He was rash enough to pledge his own life that the prince should recover. The patient had some affection of the legs; Leo gave him his simples and applied poultices and hot bottles, but with no avail. The disease got worse and the prince died. The unfortunate practitioner was thrown into prison, and six weeks later was publicly executed. The people considered his death a just one; he had deceived the Czar and had brought his fate on himself—a statement, it must be confessed, not without some element of truth. It was not always easy for those who had once entered the Czar's service to leave it. The murder of the German doctor, Anthony, created a panic among the other foreign craftsmen. Aristotle Fioraventi, the famous Venetian architect, designer of coins, caster of cannon and of bells, who rebuilt the beautiful Cathedral of the Assumption as it now stands in the Kremlin in Moscow (the same cathedral in which the present Czar was so recently crowned), when he learned of the murder, begged to be allowed to return to his own country. But his request so enraged the Grand Duke that he put the unfortunate man under arrest in his own house and confiscated all his goods.

³ Professor Zagoskin by an obvious slip says Sviatopolck.

⁴ The title of Master appears to have been usually applied to Jewish doctors in the Middle Ages, as they were excluded from bearing the title of "Doctor."

In the following reign, that of Vassili IV., a Russian subject named Theophil was taken prisoner in Lithuania and carried to Moscow. There he began to practise medicine, and with such success that when in 1516 the margrave in whose service he had formerly been demanded his return the Russian prince refused to let him go. To a like request two years later the prince answered: "He has many of the nobles on his hands under treatment; besides he has already a wife in Moscow." In this case the foreigner had, it seems, become quite at home in his new surroundings and did not himself wish to leave. Nineteen years later he was still in Moscow, for in 1537 he was ordered to make a medical examination of a certain princeling who had refused to enter the military service on the pretext of illness. Two other names stand out at that period, those of Marco, a Greek, and Nicolo, a native of Lübeck. The second is described by the imperial ambassador, who visited Moscow in 1518, as "Maestro Nicolo Lubacense, professor di medicina et di astrologia et di tutte le scienze fondatissimo." This professor of all fundamental knowledge treated the Grand Duke in his last illness, but of his other exploits almost nothing is known.

III.

The Reign of Ivan the Terrible.—Alien Physicians in Russia: their Diplomatic Positions.

WITH the accession to the throne of Ivan IV.,⁶ better known as Ivan the Terrible, begins a period in the annals of Russian medicine of much greater interest to Englishmen than those hitherto described. The story of the relations between England and Russia in the middle of the sixteenth century has often been told, and it is not proposed to go over that well-trodden path again here. The voyages of Chancellor and Willoughby, the "discovery" of Archangel, the foundation of the Russia Company, the establishment of diplomatic and commercial relations between London and Moscow, and the abortive attempt of the Czar Ivan the Terrible to bring about a still closer union of the two countries by marrying an Englishwoman—all these are matters known to everyone who has the slightest acquaintance with the course of Russian history. What is not so generally known is that an important part in these events was taken by the English physicians or medical practitioners who were invited or sent to Moscow from London at that time. Many of the numerous letters which passed between the Czars Ivan and Feodor on the one hand, and the Queens Mary and Elizabeth on the other, are taken up with the important subject of the choice and despatch of a trustworthy body-physician for the service of the Russian autocrat. And the men who entered this service—one that was still not without its perils—were not only men of high professional attainments but were something more than physicians. In many cases they were trusted diplomatic agents who carried on important and delicate negotiations between the two countries. In those days, when there was no resident ambassador of the one Court at the other, but only occasional missions for some special purpose, it was obviously of great advantage to an English statesman to have an intelligent, educated, and observant person, such as a physician would be, residing at the Russian Court, and ready and able to keep him in touch with all that was passing there. Nor were the English statesmen of the time slow to take this advantage; not only in the case of physicians, such as Mark Ridley or Jacob, who were duly accredited from one Court to the other, but even in the case of those who entered the Russian service privately, such as the scoundrel Bomelius, whose story will be told presently.

The first Englishman who went to Russia to practise

medicine appears to have been Dr. Ralph Standish. Unfortunately but little is known of his career. He had graduated M.D. at Cambridge in 1553, and had been licensed by the College of Physicians to practise for one year only in November, 1556. In 1557 he sailed for Russia with the famous Antony Jenkinson, the first English ambassador at the Muscovite Court. He reached Moscow, but of his experiences there and his ultimate fate no traces are left. Contemporary with him was a certain Italian practitioner, named Arnolfo Linsceus, who appears for one moment only on the page of history. He was summoned to attend the victim of one of the Czar's jests. Ivan had given one of his boon companions, a Prince Gvozdef, some scalding soup to drink, and when the prince tried to run away he struck him with a knife and wounded him so severely that he fell to the ground covered with blood. Arnolfo was sent for. "Cure my good servant there," said the Czar, "I have been playing with him rather carelessly." "So carelessly," answered the doctor, "that perhaps God and your Majesty will raise the dead, for the breath has already gone out of his body." The Czar waved his hand, called the dead man a "dog," and went on with his amusements.

An incident such as that just narrated throws a lurid light on the character of the times and of the ruler who subsequently earned the title of "The Terrible," though, like all isolated incidents, it shows but one side of that curiously complex personality, in whom good and evil had a prolonged struggle for the mastery, but in whom the final triumph of evil was so complete that what good there was in him has been almost altogether lost sight of in the memory of his crimes.

Ivan the Terrible has not infrequently been compared with King Henry VIII. There seems, however, little to justify the comparison, save that each had a particularly strong will and each married six wives. The Russian, unlike the English ruler, was on the point of marrying a seventh, or, to speak more strictly, was negotiating a seventh marriage, when he died. Had he lived it is doubtful if the marriage would have taken place, for the English lady whom he asked to share his throne was not over eager to leave her own country, and seemed to think that the perils and drawbacks of becoming wife to a man like the Czar were fully as great as the attractions of an Emperor's crown. The negotiations for this match are closely associated with the names of two medical men of widely opposite characters and careers, the physician-ambassador, Robert Jacob, and the miscreant Bomel. It is sometimes stated that Ivan IV. made a proposal of marriage to Queen Elizabeth herself. But this was not the case. The idea was suggested to him, but it was not probable that he seriously entertained it as a practical possibility. The suggestion is said to have been made to the Czar by this same Bomel, a good-for-nothing Anglo-German, the story of whose eventful career is not unprofitable reading. This man, Elisæus Bomelius in full, was the son of a Lutheran preacher and was born at Wesel in Westphalia. He was sent to England and educated at Cambridge, where he graduated as Doctor of Medicine. At this time his evil propensities had not shown themselves, and he was well received by the English reformers, to whom he had letters. Melancthon is said to have praised him highly for "erudition and godliness." After graduation he went to London and soon gained a high reputation as physician and astrologer. "People resorted to him to be cured of their sicknesses, having a wonderful confidence in him and in his magic." He even gained the ear of Sir William Cecil, who is said to have consulted him as to the probable length of the Queen's life during one of the negotiations for her marriage. In 1567 Bomel was arrested at the instance of Dr. Thomas Francis, the President of the College of Physicians, for

⁶ Reigned 1533 to 1584.

practising medicine without licence from the College, and was thrown into the King's Bench Prison. There he lay for a couple of years, writing to Cecil vindictive letters, in which he spoke of Francis's ignorance of astronomy and Latin, while petitioning Cecil and later Archbishop Parker for his release. The Archbishop wanted to send him abroad, but Bomel gained time by concocting a tale that he had an important secret to divulge—that he had knowledge of a great danger hanging over England. The Archbishop, suspecting a conspiracy, passed him on to Cecil. The important secret proved to be nothing more than the vague statement that, as great revolutions occur every 500 years, and as that time had passed since the Conquest, something terrible might be expected to happen shortly. Cecil treated the author of this rubbish with the contempt he merited, though, as has been remarked, if his "prophecy" had come only a few years later, at the time of the Armada, his fate might have been a different one. As it was, he accepted a most opportune offer to join the suite of the Russian ambassador Savin, who was then in England and on the point of returning to Moscow. Late in 1570 he was settled in the Russian capital. The English ambassador, Jerome Horsey, who began his travels in 1572, frequently met Bomel; he found him living in great pomp and luxury at the Court of Ivan, with whom he was in great favour as a magician. According to the Russian historian Karamzin he was for a time the Czar's evil genius, poisoning his mind against the *boyars* or nobles, foretelling rebellions, and prompting him to some of his worst persecutions. But Nemesis overtook him at last. The wicked doctor, together with the Bishop of Novgorod, was discovered in treasonous correspondence with the kings of Sweden and Poland, with whom Russia was then at war. His dreadful fate cannot be better told than in the pregnant words of Horsey, who was in Moscow at the time. "The bishop, upon examination," he writes, "confessed all. Bomelius denied all, hoping to fare the better by means of some of his confederates, as it was thought, favourites near about the King, whom the Emperor was appointed to attend his son Charowich [Czesarévitch] Ivan; to examine the said Bomelius upon the rack; his arms drawn back disjointed, and his legs stretched from his middle loynes; his backe and bodie cutt with wyer whippes; confessed much and many things more than was written or willinge the Emperor should knowe. The Emperor sent word they should rost him. Taken from the *pudkie* [or rack] and bound to a wooden pool or spitt; his bloudye cutt backe and body rosted and scorched till they thought noe liffe in him; cast into a slead, brought thorow the castell; I preste among many others to see him; caste up his eyes naminge Christ; cast into a Jungeon and died there. He lived in great favour and pompe; a skilful matimetician, a wicked man, and practicer of much mischieff. Most of the nobles were glad of his despatch, for he knew much by them. He had conveyed great riches and treasure out of the contry by way of England to Woessell in Westvalia, where he was bown, though brought up in Cambridge. An enymie alwaies to our nation. He had deluded the Emperower, making him belive the Quen of England was yonge and that yt was very feacheable for him to marrie her, whereof he was now out of hoep." One turns with a shudder from this hideous picture of suffering. The wretched man's widow, an Englishwoman, remained in Moscow until 1583, when the English ambassador obtained leave for her to quit the country and return to England. His reference to the matter is very brief. "Obtained leave," he writes, "Jane Ricards, the widow of Doctor Bomelius, who for treason with the King of Pole against the Emperor was roasted to death at the city of Moscow in the year 1579."

A very different man was Dr. Robert Jacob. The Czar wrote to Queen Elizabeth in 1580 asking her to send him an

experienced physician, and the Queen recommended Dr. Jacob, or Jacobi, one of her own body-physicians; not, as she stated in her reply to the Czar's letter, that she herself had no need of him, but because her "brother in the blood," as she called the Czar, required him. Jacob seems to have been a man of considerable attainments. He was a native of London and a graduate of Basle and of Cambridge.⁶ It was in 1581 that he sailed in a fleet of merchantmen which Jerome Horsey was conducting from England to Russia. On arriving in Moscow he was for some time maintained by the Russia Company, until the Czar gave him a regular stipend. Jacob was not long in Russia before his influence was felt at the Court of Ivan. Some slight trace of conscience, it may be supposed, was still left to that extraordinary person. After committing on his people a series of atrocities of a nature which a few years ago would have been known as "Bulgarian," but which in future will perhaps be more familiar as "Armenian," he appears to have felt, if not remorse, at least a fear that the people would rise and avenge their wrongs upon the author of them. This, quite as much as the expectation that political advantages to Russia would follow, made him anxious to find an ally in England. His relations with Elizabeth were already of the most friendly character, and he had already secured her promise of welcome and protection if he should be forced to fly for safety from his own subjects. But he now proposed to form a new bond of union between the two countries by marrying an Englishwoman. The fact that he had two wives living at the time was no obstacle to the autocrat. One had already been put away, and the second could be forced into a nunnery. So he turned to Dr. Jacob, who, in addition to being a physician, acted much as an ambassador from the English Court, and asked him to recommend a *neviesta*, maid or widow, worthy to share the Imperial throne. The doctor mentioned the name of Lady Mary Hastings, the daughter of Lord Huntingdon, and related on her mother's side to Queen Elizabeth. He so dwelt upon the charms of this lady that he quite captivated the imagination of the Czar, who, doubtless, was also not unmoved by the fact that the proposed bride was nearly related to the Queen. The result was that Ivan at once despatched a special ambassador to London with instructions to arrange conditions for a close Imperial union between England and Russia, and to see the Queen privately and tell her as a secret of the Czar's wishes as to marriage. He was also to see Lady Mary Hastings and report to the Czar whether she deserved the eulogiums that Jacob had passed upon her. The man chosen for this important mission was Theodore Pisemski.

It is beyond our province here to tell the story of Pisemski's mission, of his interviews with Elizabeth and the delays under various pretexts before he could see the bride-elect. She, poor creature, was only just recovering from the small-pox, which had destroyed her beauty for ever. Pisemski reported to the Czar as he had been commanded to, but his report was a mere inventory of the lady's features—about as graphic as the description of the person on a modern Russian passport. It contained not one word in praise of her beauty or personal charms. The Queen was also very doubtful of the effect which the sight of Lady Mary's scarred and disfigured face might have upon the Czar. The person most concerned, the Lady Mary herself, at first favoured the idea of the marriage, but her view altered when she came to know more of the man she was asked to marry and of the country she was invited to share in ruling. Pisemski consequently returned to Russia in 1583, having failed in this

⁶ He was a Fellow of Trinity, took his A.B. in 1569, and A.M. in 1573. He then went to Basle, where he graduated M.D., and was incorporated, on that degree at Cambridge in 1579. In 1585 he became Licentiate of the College of Physicians, and Fellow in 1586.

part of his mission. He was accompanied by an ambassador from Elizabeth, the famous Jerome Bowes, who was instructed to settle all matters commercial, political, and secret then pending between the two countries. Bowes is described as a man rough in his manner and obstinate—one who in his first word showed himself determined not to yield a point. This mission was beset with difficulties, but it was brought to an abrupt end by the illness and death of the Russian autocrat. Ivan the Terrible, living up to his name to the last moment, died on March 18th, 1584. His faults are known to all. Let one small fact, infinitely minute in the balance though it be, be placed to his credit here. While his own subjects were groaning under the most

these are a few of the Englishmen whose names the records of the time have preserved. Only one (the last named) has left any more permanent mark in history. Freucham is said to have founded the first *Apteka* in Russia—a peculiar and important institution to be described more fully later. Jacob returned to England very shortly after the death of Ivan, but was again sent by Elizabeth to the new Czar Feodor, who required a skilled obstetrician to attend the Empress Irene in her confinement. Neither Jacob nor the midwife who was sent with him, however, reached Moscow, the practitioner returning to England and the midwife being detained for some obscure reason at Vologda for over a year. But the Czar soon wrote again to the Queen

FIG. 3.



MARK RIDLEY.

Missus ab Elisa Ruthensis quinque per annos Anglis ni desis te vocat illa domum. Tute Mathematicis clarus magnetica calles Pconias laudes doctus unique capis.

monstrous tyrannies the world has ever seen, while the foreign merchants, and even the foreign ambassadors at his Court, were frequently subjected to the grossest indignities and even dangers, his English physicians were for the most part treated with respect and justice. If the fact be but a small palliation of the tyrant's crimes, it is a proportionally great tribute to the moral worth of those who met with such exceptional treatment.

Of the physicians at the Russian Court during the reign of Ivan the Terrible Robert Jacob was by far the greatest. Of the others scarcely more than their names remain. Ralph Standish, Richard Elmes, Reynolds, Richert (or Richard), the apothecaries Thomas Carver⁷ and James Freucham—

begging her to send him another physician. Elizabeth wrote in reply to Boris Godunof, the Master of the Horse to the Czar, who later himself sat on the Russian throne:— "And whereas wee were advertised by our marchands that your lordship was desirous to have an English physician to be sent over for the service of the Emperour, and having byn also moved and sollicitied by our Cheife Councillor and Lord High Treasurer of England, William Lord Burghley, to send over one of our owne Doctors of Physick, commended by us to His Matie, wee, applying ourselves and being willing and ready to assent, either to this or to any other thing that may lyke His Matie, have appointed Mark Rydley, one of our Physicians, to undertake this voyage and service, *a man learned and expert in his profession* and fitt for the service of a Prince, who being required hereunto by us, upon notice had of your Lo. desire and estraverged from his

⁷ Carver went to Russia in 1567. He perished in the house of the Russia Company in Moscow, which, with nearly the whole of the rest of the city, was destroyed by fire by the Tatars on Ascension Day, 1571.

country, we do commend to your honourable favour to be protected and graced by your Lo. according to the quality of the man, whom we doubt not but your Lo. shall find to deserve your good liking and favour." Mark Ridley,⁸ the doctor mentioned in this letter, was the son of an English clergyman. He was a Cambridge graduate and Fellow of the College of Physicians, and a learned authority on magnetism, a subject upon which he published several works. He stayed at the Court of Moscow for about four years, until the death of the Czar Feodor in 1598, when he returned to England. He seems to have held a high position in his profession, being Censor of the College of Physicians on eight occasions and treasurer twice. He died in 1624.

After the death of the Czar Feodor the Russian throne was occupied by Boris Godunof, who is generally called a usurper. It is true he had no royal blood in his veins, but Elizabeth recognised him, and three months after his accession wrote him a letter of congratulation on his selection by the Russian people, in which she gave him all the full and numerous titles of a Russian Czar. It was in this letter that she asked him to "grant lycence" to Mark Rydley, "our subject, Physician to the late Emperour, to returne him hither to his natyve country, for that they have shewed us that dyvers causes nearly concerning his private state doe require his being here and cannot be ordered without hym." A year later Boris Godunof, who probably missed the services of Rydley, wrote, just as his predecessors had done before him, to Queen Elizabeth, requesting her to send him an English physician. On this occasion the negotiations were not quite so successful as before, though not from want of goodwill on the part of the English Queen, nor from any professional disqualifications on the part of the doctor she selected. This was Dr. Thomas Willis, who must not be confounded with his more distinguished namesake, the famous Oxford professor and physician to Charles II. The Dr. Willis of Elizabeth's time went to Russia with the Queen's warmest recommendations, but unfortunately she at the same time gave him some instructions of a political character. This was quite enough to rouse the suspicions of Boris, who did not feel himself very firmly seated on the throne and was ready to scent danger in the most trifling circumstances. He determined, therefore, not to receive the English doctor, but in order to avoid offending the Queen he had recourse to a little diplomatic subterfuge. He arranged that the foreign doctor should undergo an examination as to his knowledge and fitness to practise before being allowed to settle in Moscow. This earliest of medical examinations held in Russia was entrusted to Shtchelkalof, the Russian Chancellor, an official with notorious anti-English prejudices, who carried through the farce admirably. "You call yourself a doctor," he said to Willis; "but have you any doctor's diplomas, or doctor's books, or healing herbs with you?" "All my doctor's books and herbs I left behind me at Lübeck," answered the doctor, "in order to hurry on here." "And how do you recognise sicknesses in man; by the water or by the pulse?" "One does not need books to tell diseases," answered Willis. "A slight malady one tells by the water and a severe one by the pulse. Besides," he added, "I have a grand book of medicine with me; it is here, in my head," and he rapped his forehead as he spoke. The examiner was, of course, not satisfied with these answers, and the rejected doctor was sent back to his native country. He was apparently the only English medical man who went to Moscow during the usurper Boris's reign. After the death of Boris in 1605 political affairs in Russia became

of a highly complicated character, although it is unnecessary here to follow the fortunes of the false Dmitris and the Shuiskis, pretenders who held the throne of Moscow for periods to be reckoned by weeks or days, or the fluctuations of the never-ending wars between Russia and Poland, during which affairs in Russia were almost as chaotic as during the period of Tatar invasions three centuries earlier. These troublous times—*Smutniaia Vremeni*, as they are well named in Russia—came to an end in 1613, when something like order was restored by the election to the throne of Michael, son of Philaret, the Metropolitan of Moscow.

IV.

The Accession of the Romanoffs.—The Aptekas and the Aptekarski Prikaz or Ministry of Medical Affairs.—Foreign Medical Men in Moscow of the Sixteenth Century.

THE accession of Michael, the first of the Romanoffs, is an important epoch in Russian history, and as many readers of these notes may be unacquainted with the general outline of that history it may help them to "fix" this epoch by adding that Michael was the grandfather of Peter the Great, and that he reigned from 1613 to 1645. But the main importance of his reign in the present connexion is that during it was organised a very remarkable institution—a Ministry of Medical Affairs—of interest not only in itself, but also as being the germ whence sprang the present highly organised medical bureaucracy which now exists in Russia.

Each of the various departments of Government in Russia in the seventeenth century was known as a *Prikaz*, a word which, in the sense in which it was then employed, is now obsolete, but which may be translated as a Ministry. Among the various Ministries, not the least important appears to have been the *Aptekarski Prikaz*, or Ministry of Affairs relating to Medicine. The exact date of its institution is not known. Some ascribe it to the end of the sixteenth century. It was certainly in existence early in the seventeenth century. It seems to have been a development of another institution, the *Apteka*. This was at first merely the central store for the distribution of drugs to persons about the Court of Moscow. It was founded about the year 1581 by one of the numerous English apothecaries who entered the Czar's service. Of this Englishman, unfortunately, not very much is known. His name was James Frencham,⁹ and he seems to have gone to Russia at the same time as Dr. Jacob, whose career has already been sketched. He was certainly in Moscow in 1581, when he instituted the Court *Apteka*; then he seems to have returned to England, but twenty years later he is the subject of quite a series of letters between Queen Elizabeth and the Czar Boris Godunof, showing that he again desired to join the Czar's service. Accordingly, in 1602, after an unusually long delay on the road, he again arrived in Moscow, this time with his wife and family, and a whole supply of drugs, of which, fortunately for the curious in such matters, a list is preserved. Whether Frencham had anything to do with founding the *Aptekarski Prikaz* is not clear. All that is known is that it grew in some way out of the *Apteka*, which he is known to have founded. The *Prikaz* was organised in exactly the same way as the other Ministries. One of the highest *boyars* or nobles was always at the head of it. Thus in 1637 it was under a Tcherkasski, in 1642 under a Shere-metief, and in 1662-88 under a Miloslavski. Let us glance for a moment at what constituted this seventeenth century Ministry of Medical Affairs.

Apart from the clinical staff the members belonged to the following six groups: 1. Doctors—i.e., physicians. 2. *Lékars*—i.e., surgeons. 3. *Aptekars*—i.e., apothecaries in connexion with the Court *Apteka*; under them were

⁸ Mark Ridley, or Rydley, was the son of Lancelot Ridley, the rector of Stretham, near Ely, where he was baptised in 1559. He was at Clare College, Cambridge; graduated A.B. in 1580, A.M. in 1584, and was admitted L.C.P. in 1590; took his M.D. Cantab. in 1592 and F.C.P. in 1594.

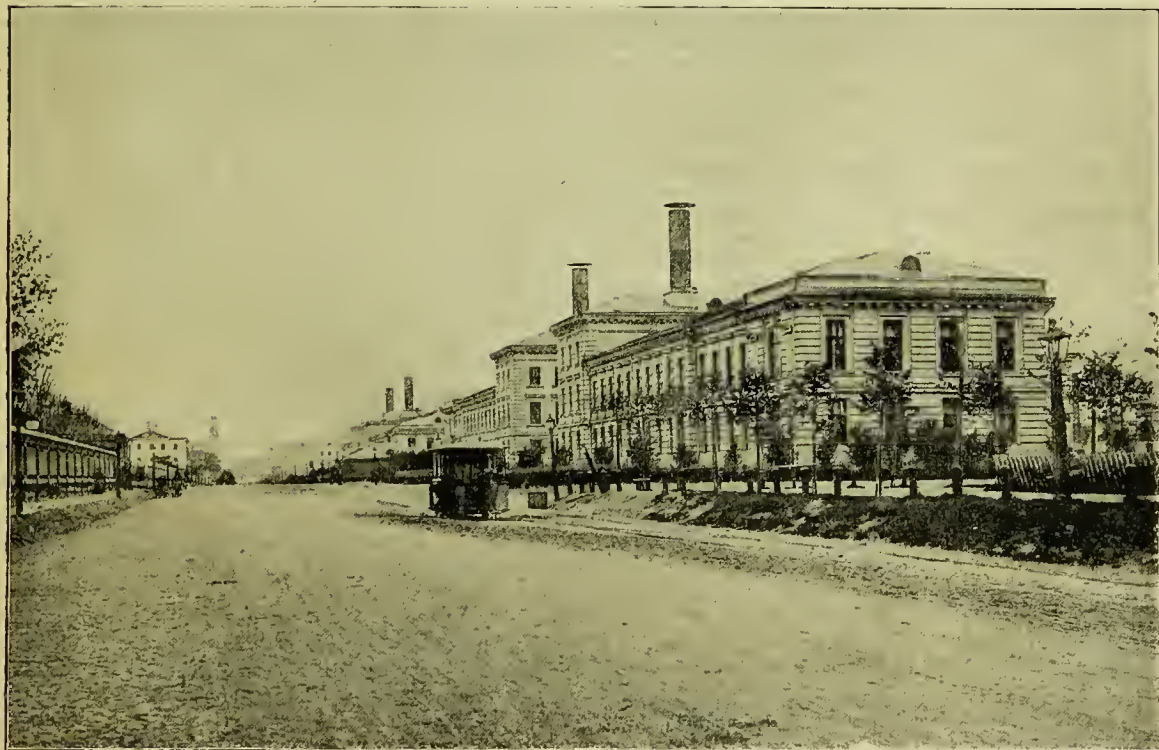
⁹ The Russians renamed him Jacob Astulief.

FIG. 4.



The University of Moscow: The new University Buildings.

FIG. 5.



The Moscow Clinique: General view from Great Tsaritsyn-street.

alchemists, distillers, pupils, and *travniki*, or persons who collected *travni*, or healing herbs. 4. Oculists. 5. Barbers, blood-letters, bone-setters, and undertakers. 6. Clock-makers, who for some reason were attached to this Ministry.

The income of the Ministry was derived mainly from two other Ministries—those of the Grand Palace and of the Grand Treasury. For a time its history is merely that of the old *Apteka* from which it had sprung. Later a second *Apteka* was founded, and the two were known henceforth as the Old and the New. The Old continued to serve out drugs only to the Czar, the Court, and to more distinguished foreigners. The New *Apteka*, however, was allowed to sell medicines and other things to the troops and to private individuals, and it was even ordered to take concern for the health of the citizens and for the prevention of infectious diseases. So that as early as the middle of the seventeenth century there was the nucleus in Russia of a Public Health Service. In the following pages the stages in history which connect those early beginnings with the present system which prevails in that country will be briefly indicated. But before doing so a little more has to be said about the Old and New *Aptekas*.

It is tempting to dwell on those still early days, when the first rays of western civilisation were beginning to dawn on the Muscovite Empire, but before Peter had forcibly flung open his famous "window that looked to the west," and which let in, with much-needed light and air, some other elements less desirable. It is a fact perhaps not generally recognised that before the great Reformer's time Russia had not only begun to look to the west and to adapt herself to western ideas of civilisation and development, but had also begun to advance on lines of her own. Thus the *Aptekas* just described, although founded by an Englishman, appear to have been thoroughly Muscovite institutions and were not modelled on any similar institution in another country. Thanks to the reprint by the present Russian Medical Department¹⁰ of the books and documents of the *Aptekarski Prikaz*, we can form to ourselves a complete picture of these institutions and their working. We learn not only the accepted medical traditions of the time and country, the names given to their ailments and the drugs used to cure them; but we can gather some idea of the social condition of the people and the social ideas then prevailing. We see one *Apteka* for the *boyars* and one for the common people; we can read the abject petitions (the abjectness doubtless more than formal) of private persons desiring treatment or medicine. One Theodore Baranof has his right hand nearly blown to pieces by an arquebuse and humbly begs the privilege of a surgeon's aid, which the Czar Michael graciously permits. Here is the ceremonial observed when the Czar himself had to take a dose of medicine. A special set of drugs was kept for His Majesty in a separate room, locked and sealed by the secretary of the *Prikaz*. Without his consent no one, not even the imperial medical men and apothecaries, could enter the room. The drugs were kept in sealed bottles and boxes. The prescription written by the medical man was first submitted to the *Prikaz*, who entered it in their books, and was then presented as a *skazka*, or official paper, to the Czar, who gave the order for its preparation. It then passed to the *Apteka*. Here only the most trusted medical men and apothecaries took part in the preparation, working in a separate room to which no one else had access. And now, when all was ready, the medicine was tasted by a whole series of official persons: firstly, by the doctor who had prescribed it; secondly, by the president of the *Aptekarski Prikaz*; and

lastly, by the high Court official who carried it up to the Czar. Dr. Rosenburg, hody physician to the Czar Alexis (Peter the Great's father), relates that he once had to swallow the whole bottle of medicine which had been prepared for the Czaritza, simply because it had caused some nausea to the high Court lady who had tasted the stuff before presenting it to Her Majesty. We are not told the result on the physician. Not only were medicines provided by the *Aptekas*. Not long after their foundation they are found furnishing the Patriarch of Moscow with "ten pounds of good amber" for the preparation of the chrism. At other times they sent to the palace aniseed, molasses or other aromatic substances for the making of *vodkas* or strong drinks, and in 1707 they provided paints and varnish to paint the imperial yacht at Voronezh.

Of the medical practice of the time, with its poly-pharmacy and its use of curious and sometimes very rare and costly drugs, not much need be said here. The recipes and lists of drugs correspond closely with the same things in contemporary medical books in other countries. Occasionally strange remedies are met with. By great good fortune a complete inventory is preserved of the contents of a travelling medicine chest which was prepared for the Czar Alexis on the occasion of one of his journeys to the Great Monastery of the Trinity, some forty miles from Moscow. In the list of oils, elixirs, essences, syrups, salts, plasters, and powders, there occur a "syrup of colts' hoofs,"¹¹ a "spirit of worms," another of ants, and a balsam of "unicorns' horns." The horn of a unicorn was a most highly esteemed remedy in those days. Sometimes fabulous prices were not only asked but given for even a piece of a horn. For instance, in 1655 a foreigner brought to the *Prikaz* in Moscow three horns which he declared to be those of unicorns and offered them for sale at the enormous price of 10,000 roubles.¹² Dr. Graman, a physician who had studied at Jena, Leipzig, and Wittenberg, gravely reported upon these horns to the *Prikaz*. He declared that they were undoubtedly what they professed to be, and that two of them were extraordinarily fine specimens, and he therefore proposed that for these two alone a sum of 5000 roubles should be offered. The *Prikaz* ultimately decided to offer 5300 roubles for all three horns, but if the vendor refused to take less than the original sum, to pay that rather than lose the horns. The ultimate result of this bargain is not stated. It may be noted in passing that the price of the horns was to be paid at the wish of the vendor in sable skins and other peltry. This was a frequent medium of exchange in Russia at that time. The therapeutic uses of unicorn's horn, or whatever it was that passed for it—it was in all probability the horn of the rhinoceros—were numerous and varied. It was mainly apparently a prophylactic, invaluable against fevers, pestilences, and even the bites of serpents. According to Dr. Belau (physician to both the Czar Michael and Alexis) it was "a certain protection against plague, small-pox, and dysentery." He had sufficient belief in it to take it himself, at least on one occasion, when he swallowed a dose of twelve grains in two tablespoonfuls of hot Rheinwein, taking measures to encourage diaphoresis after the dose. He was the fortunate possessor of a small piece of horn weighing a quarter of an ounce, and in exchange for this he asked not less than twenty sable skins.

No little store was also laid by certain magic stones. The same Dr. Belau offered the *Prikaz* a whole collection of such stones. One of these if worn near the kidneys cured renal complaints; others had only to be soaked in water and the water acquired marvellous healing powers in disease of the

¹⁰ Richter, whose work on Medicine in Russia has usually been the leading authority for this branch of history, was deprived of the use of these documents, as he believed they had been destroyed in the burning of Moscow in 1812. They were, however, safely preserved among the archives of the Ministry of the Interior.

¹¹ Possibly, of course, a plant of that name.

¹² Equivalent to at least 60,000 roubles, or over £8000, at the present day.

eyes; yet another had a wonderful influence over pregnant women, for if worn round the neck of the woman it gave strength to both mother and child. In fact, there was scarcely a disease or a part of the body which had not its own particular magic stone. Few of the drugs used at that time were of native production. They came from Germany, Holland, or England. English merchants trading to Archangel found a ready market for such goods, and in addition the foreign medical men who came to Moscow always brought a goodly supply of drugs with them. The list of drugs already mentioned, which Frencham, the English apothecary, took with him, contained the names of no less than 164 different substances or preparations. Later efforts were made to develop the native resources. *Travniki*—that is to say, collectors of *travn*i, or simples used by the peasants, were appointed by the *Prikaz*. The enormous tracts of Siberia were laid under contribution. The Siberian *royevods*, or military governors, were ordered to make local inquiries as to the herbs of popular repute in their district, and to send samples of such as were used to Moscow. The record remains of the appointment in 1669, by the governor of Yakutsk, of an official named Epishef who travelled for two years on a botanical excursion, and published on his return a brief description, still extant, of the herbs he had collected and their uses—a sort of miniature Siberian Pharmacopœia of the seventeenth century. Later in that century attempts were made by the *Prikaz* to cultivate medicinal plants in botanical gardens in and around Moscow itself. The word "*travniki*" was also applied to certain popular manuscript books which described the nature and properties of the herbs and simples in common use. The descriptions in these books are a curious mixture of common sense and superstition. The one most commonly appealed to was known as the *Leitchebnaia Kniga*, or Book of Treatment, a translation from the Polish, which treated of simples, of distillation, of tinctures, of precious stones, of philosophical knowledge, of blood-letting, of the apothecary's and barber's arts—in fact, a sort of epitome of the medical knowledge of the time, addressed as much to the careful housewife as to the professional apothecary. An original copy of this book perished, with innumerable other valuable manuscripts, in the great fire of 1812.

Meanwhile, the stream of foreign medical practitioners continued to flow to the Russian Court. During the reign of Michael eight physicians, five *lekars* or surgeons, and four apothecaries entered his service. In the reign of his son and successor, Alexis, the numbers were larger, though the reign was shorter by a year; eleven doctors, three *lekars*, six apothecaries, and one eye-doctor entered his service. In Feodor's brief rule of five and a half years (1676 to 1682) four doctors, nine *lekars*, and six apothecaries came from abroad to Moscow. Feodor was succeeded by his half-brother, Peter the Great, whose reign must be reserved for more detailed treatment, but it may be noted here that in the first seventeen years only of his reign as many as eleven doctors, eighty-seven *lekars*, one eye-doctor, and nine apothecaries arrived in Russia. It is impossible here, and would serve but little purpose, to name even a fraction of these numerous foreign practitioners. But a few names undoubtedly deserve mention. Indeed, it is a remarkable fact, upon which it is well to insist, that the majority of the foreign medical men who went to Moscow in the sixteenth and seventeenth centuries were men of considerable standing. They were by no means the scum of the profession in other European States or adventurers who, having failed in their own country, were playing pitch-and-toss with Fortune in a new one. On the contrary, they were nearly all men with good university degrees, and provided with recommendations from their own sovereign to the Russian ruler. Without some such recommendation they would not have been accepted at Moscow. It was impossible for a private individual to make his way to the Russian capital and then start practice. To begin with, such was the state of the roads that without an *opasnaia gramota*, or letter signed by the

Czar guaranteeing a safe journey, he could never have reached Moscow alive. If by a miracle he had reached the capital he would at once have been arrested, and then the best he could have hoped for would be a safe escort to the frontier. On the other hand, those who came with proper credentials were treated with every consideration. Let us, for example, try to follow the fortunes of an English medical man invited to Moscow about the middle of the sixteenth century. A detailed correspondence on the matter may be supposed to have passed between the Queen and the Czar. This correspondence was sometimes prolonged over several months, or even a year or two. When all was settled to the satisfaction of both parties, the practitioner chosen would probably sail to Archangel in a fleet of English merchantmen belonging to the newly formed Russia Company. Or he might join the suite of an English or Russian ambassador going or returning to Moscow. Having safely accomplished the sea voyage and landed at Archangel, the long overland journey to Moscow would begin—a distance of over 600 miles to be traversed either on horseback or in carriages. To accomplish this safely a passport, the so-called *opasnaia gramota*, was, as already stated, essential. This document sometimes guaranteed not only a safe conduct to Moscow but also, in case the bearer should wish at any future time to go back to his own country, a safe return to the frontier. Journey money was provided and also a fixed daily supply of provisions. Rather more than halfway to Moscow, at Vologda, the party of travellers would be met by a special escort from the Czar to bring them on to the capital. Arrived in Moscow he was assigned a set of rooms or a house, most probably inside the Kremlin. Here the very first act demanded of him was to subscribe an oath of fidelity to the Czar, in which the medical man bound himself most solemnly not to use poisonous drugs, or to do anything by thought, word, or act to the hurt of the Czar or to any member of the Royal family. The fear of being poisoned or bewitched seems to have been constantly present in the minds of more than one Czar, and the precautions taken against such a disaster have already been seen in the description of the ceremony observed when the Emperor required a dose of medicine. It is even said that the Emperors Feodor and Boris Godunof declined under any circumstances to take medicine from their foreign medical men, though they more than once called in *hudebniks*, or wizards (even then not an extinct race), and took their simples readily enough.¹³

After taking the oath, the doctor whose fortunes we are following was taken to the *Posolski*¹⁴ *Prikaz*, or Foreign Office, thence to the *Aptekarski Prikaz*, and finally had an audience of the Czar. Then followed a curious and pleasant custom, though one strongly tinged with orientalism. The Czar sent the new-comer a quantity of handsome presents, technically known as the "presents on arrival." Here is the list of articles sent to Dr. Sibelist, a famous physician in his day, when he arrived in Moscow early in the seventeenth century:—Undefined quantities of velvet, "black and smooth"; velvet of a coarser quality, and satin; two pieces of damask and two of cloth; forty sable skins worth 40 roubles, and 40 roubles in

¹³ A tale is told of a *médecin malgré lui* in the time of Boris Godunof, which, if not true, is certainly drolly apposite. The Czar being taken ill a proclamation was made offering high rewards to any person who would cure him. A certain *boyar's* wife, who had some grudge against her husband, scented a fine opportunity for revenge. She went to the Court and stated that her husband knew of a remedy which was a certain cure for the Czar's disease. The *boyar* was sent for and at once questioned as to his remedy. Denials and professions of ignorance were of no avail. He was beaten and threatened with torture and even with death if he did not at once treat the Czar. So the wretched man begged a respite of fourteen days, hoping some *deus ex machina* might be forthcoming in that time. During the interval he collected some herbs and some earth from the banks of the River Oka, and as a last resource proposed that the Czar should bathe in an infusion of these. To his surprise and joy the Czar actually recovered after his bath. But the poor *boyar* was not out of his fix yet. It was clear that he had known of a remedy all along, and as he had refused at first to name it he must have wished the Czar to die. So he was beaten within an inch of his life, and then, with a fine inconsistency, as he had ultimately cured the Czar he was dismissed with a reward of 200 roubles and an estate of eighteen serfs, granted him on condition that he did not take vengeance on his wife. The couple are declared to have lived "happily ever after."

¹⁴ From "*posol*," an ambassador.

money. To his wife were sent at the same time quantities of damask, taffetas and cloth, and forty sables worth 25 roubles; and to his servants pieces of "English cloth, each of the higher servants receiving in addition 8 roubles in money. Even the kitchen-maid and cook were not forgotten, each getting her modicum of cloth. These for the outer person. But the inner man was not forgotten, and numbers of good things were despatched from the Czar's table to that of his new Court physician. The same Dr. Sibelist received three loaves of bread, a quarter of beef, a goose, two ducks, a hare, two woodcocks, a sheep "with the wool on," five chickens, six half-pounds of butter, eight eggs, a flagon of *boyar* wine, two flagons of *romanci* (a kind of sweet wine) and two of Rheinwein; two each of cherry mead, raspberry mead, molasses mead, and another sort of mead; one *vedro* (two and a half gallons) of still another kind, and four *vedros* of "prince's mead"; one *vedro* of "artificial" beer, and two of "simple" beer.

The stipend paid to the foreign physician, if not on so prodigal a scale as the presents made to him on his arrival, was not an ungenerous one. In the time of Boris Godunof a doctor received 200 roubles a year and twelve or fourteen roubles a month. It is not easy to give an exact equivalent of these sums in the money of to-day, but it seems probable that taken together they amounted to a very considerable sum. But in addition to this he was provided with a house, with a monthly supply of bread sufficient for his whole household, and with sixteen "loads" of firewood, four barrels of mead, and four of beer every month. He and his servants were vast consumers of strong drinks. In addition to those just named there came daily to his house from the Czar's kitchen one and a half quarts of *vodka*, the Russian rye spirit, as well as the same quantity of vinegar and a side of bacon. Every day the Royal table furnished him with three or four dishes, each "so heavy that the strongest man could with difficulty lift it." Other material wants were also liberally provided for. Five good horses were sent from the Royal stables for his use, and sufficient hay and straw for seven horses were furnished every month. One still better horse was given him as a saddle-horse, to be used specially when he made his morning visit to the Kremlin and the *Court Apteka*, a visit never omitted in the summer months. Then there was a special horse for sledding in the winter, two horses for his wife "with which to drive to her own church," and a carthorse "to get in the water." To some, if not all, of his foreign physicians the Czar granted a small estate of some thirty or forty "souls"—i.e., serfs. Special presents on special occasions also—such as the successful treatment of a great *boyar*, or *à fortiori* of the Czar himself—were not infrequent. In the latter case he might get a piece of valuable damask or velvet, or forty fine sables as a present. Altogether, the lot of the foreign practitioner who was invited to the Muscovite Court in the sixteenth century was by no means an unenviable one. It had its drawbacks, doubtless, but so long as he kept the Czar's favour he had nothing to fear and was treated as the equal of any *boyar* or noble in the land. It was only by the people that the foreign practitioners were mistrusted, apparently because they regarded them and their strange doings as embodiments of the powers of evil. It would have gone hard with many of them had they not been under the protection of the Czar. On more than one occasion of popular outbursts in the city of Moscow their houses are said to have been the first to be sacked by the mob.

Among the more noteworthy physicians who went to Moscow in the seventeenth century a few have to be named. They were English, Dutch, German, and Italian. In 1621 Dr. Arthnr Dee, body physician to King James and later to King Charles, went to Moscow with the King's recommendation, and stayed there for fourteen years. He wrote a treatise while there on the "Hermetic Science," which was published in Moscow, and later in Basle and Paris.¹⁵ After Dee came Sibelist from the University of Halle, recommended by the Duke of Holstein; then, in 1639, Graman, who had studied medicine in Jena, Leipzig, and Wittenberg, and was

recommended by the famous Holstein ambassador, Olearius. Four years later came Belan, with the diplomas of Leyden and Königsberg. Samuel Collins, an Englishman, is said to have made a greater name than all his predecessors at the Russian Court. He was the son of an Essex clergyman and a graduate of Padua and Oxford. He was nine years in Moscow, and the year after his death, which took place in Paris in 1670, there appeared a small anonymous book entitled "The present state of Russia in a letter to a friend in London, written by an eminent person residing at the great Czar's Court at Moscow for the space of nine years." There is no doubt that this work was from the pen of Collins. Apparently it was never intended for publication, but was merely a series of private letters addressed to "an eminent Doctor of Physick here in London." The book is quaint and interesting, even if it throws no particular light upon the state of medicine at that period, or the treatment received by the foreign practitioners at the Russian Court.

The name of John Tradescant must not be passed over without brief reference. The true founder of the great Ashmolean Museum in Oxford, which might more appropriately have been called the Tradescant Museum, and the earliest collector of all that is interesting in natural history, he has fallen into quite unmerited oblivion. John Tradescant, generally known as "the elder," to distinguish him from his son, was a Fleming by birth who had settled in London and held the honourable position of gardener to the Marquis of Salisbury and to the King (Charles I.). He had travelled much in Europe, and one of his journeys led him to Archangel in company with Sir Dudley Digges. Digges's expedition was apparently a commercial one, but he only reached Cholmogory, where he had to turn back on account of the Poles. Tradescant seems to have got no further than Archangel; but he made a great collection of natural history specimens and other curiosities gathered in the neighbourhood, and these he brought to London and deposited in his growing museum in his house at Lambeth. "Tradescant's Ark," as the house was called, soon became one of the sights of the town, and was visited by the King and Queen and the highest in the land. The old naturalist died in 1638. The collection, which included specimens of minerals, birds, fishes, insects, plants, coins, medals and all sorts of curiosities, passed to the son and on his death to the grandson, who died in 1659. Having no heirs, this last representative of the family left the museum to Elias Ashmole. Ten years later the University of Oxford offered the degree of M.D. to Ashmole, and about the same time the latter offered the whole Tradescant collection to the University, provided that they would erect a suitable building for it. The Ashmolean Museum, as it was henceforth rather unfairly called, was designed by Wren, and opened in 1683. The name of Elias Ashmole has another claim to mention here, as he published an English translation of the treatise on Hermetic Science by Dr. Arthor Dee, to which reference has just been made above.

Of the medical men of German and other nationalities space will permit no more than the mention of two or three. Rozenberg came to Moscow with the diploma of Königsberg University; Blumentrost was a graduate of Jena; Carbonarius of Grätz; Pelarino of Padua. But with these names, all of which appear at the end of the seventeenth century, begins a new era of medicine in Russia. Peter the Great had already not only come to the throne, but had begun to show the stuff he was made of. The old order was giving way to the new. Among the wonderful reforms, or rather new creations, of his great genius not the least wonderful must rank his successful endeavours to nationalise medicine as he had nationalised the other arts and sciences.

V.

The Early Russian Hospitals and Russian Medical Education.—The Medical Chancellery.

BEFORE the reign of Peter the Great there does not occur the name of a single Russian in the medical hierarchy of the Muscovite Court. There were no means by which a native Russian could obtain a medical education in his own country, and the idea of going abroad to study at a foreign university, even if he had entertained it, was one which possessed no attractions to a Russian of the pre-Reform period. The great reformer himself was the first Czar who left his country for reasons other than warlike; and it is extremely doubtful whether his example alone would have induced others to follow it. Peter was not the man to wait until his example was voluntarily followed. He saw the

¹⁵ Fasciculus Chemicus, abstruse Hermetice Scientiæ ingressum, progressum, coronidem, verbis apertissimis explicans, Moscow, 1629, 12mo. Dr. Dee was born in 1579 and was educated at Westminster and Oxford. He was a friend of Sir Thomas Browne, who says of him: "He was a persevering student in hermetical philosophy, and with the highest asseverations affirmed that he had 'ocularly, undecivably, and frequently' seen projection made in Bohemia." He died in 1651.

weakness of the system then prevailing, under which all the medical knowledge in the country was concentrated in the hands of a few foreigners immediately about the Court, while the whole of the nation was left without any instructed medical aid whatever. He not only saw the weakness of the system, but he also saw the remedy. In 1692 he tried an important experiment. He sent one of his own subjects abroad to receive a medical education at a foreign university. The experiment was quite successful. The student chosen was one Peter Vassil'itch Postnikof, the son of a *diak*, or Secretary of State, who had also served as ambassador at foreign Courts. Postnikof went to Padua and returned in four years' time with the doctorates of philosophy and medicine of that famous seat of learning. His first appointment on his return was, however, not a medical one, but that of interpreter in the suite of Russian ambassadors at foreign Courts on account of his knowledge of Latin, French, and Italian. He finally returned to Moscow in 1701, and received some medical appointment (probably in the *Priказ*) worth 500 roubles a year, but unfortunately he died very soon after. The success of Postnikof induced the Czar to send a second Russian student to Padua—this time at the request of the student's father, who was also a *diak*. Gregory Ivanovitch Volkof obtained his degree, returned to Moscow, and, like Postnikof, was employed as interpreter in the diplomatic service. Peter set him to translate the *Jardinage* of Quintigny, a French book then much in vogue; but whether as a result of the dull character of the book, or on account of the difficulty of translating it, he fell into a melancholy, and so disappears from the stage of history.

And now, having satisfied himself as to the capacity of his subjects to learn the mysteries of medical science, Peter determined to try a much more important experiment, no less than the foundation of a medical school in Moscow, so that students could obtain the needful education without leaving their own country. The first step towards this end was to build a hospital. Before this time there were no true hospitals in Russia. Institutions which passed for such were really rather infirmaries for the aged and disabled than hospitals proper. It is, however, worth noting that late in the seventeenth century, just before Peter's time, the modern idea of a clinical hospital is almost exactly expressed in a ukase from the Czar Feodor to the *Aptekarski Priказ*. In this the object of hospitals is defined as "to provide the truly poor man with a means of curing his disease; to assign to hospitals until death those with incurable disease to root out mendicants and those who feign sickness," and as a subsidiary object to provide young medical men with a means of perfecting themselves in the practice of their profession.

The hospital projected in this ukase was apparently never built, and the first institution of the kind in Russia was undoubtedly the Moscow *gofshpital*, the construction of which was begun by order of Peter the Great in the year 1706. It was built in a year; and in 1707 was inaugurated, not only the first hospital, but also the first medical school in Russia. Peter had visited England in 1698, and it is supposed that the new building in Moscow was a copy of a hospital he had seen in Greenwich. It was built from the plans of Dr. Nicolaus Bidloo, a Dutchman, who came to Moscow in 1703, under contract to act for six years as *leib-medik* to the Czar. This really able physician and organiser, who gave himself heart and soul to the task of floating the new institutions, was a son of the famous anatomist of Leyden University, and nephew of the no less illustrious botanist of Amsterdam. Bidloo soon became one of the Emperor's most intimate and familiar friends, but, like many others who were in the service of that energetic and exacting person, he found his health unequal to the strain of constant attendance upon his master, and he had been scarcely a year in Moscow when he became really ill. It was then that Peter asked him to design the new hospital and a medical school to accommodate fifty students—a task which Bidloo most willingly undertook.

It is impossible to more than outline the fortunes and misfortunes through which the hospital and school passed. The building itself—the school and hospital were one—being of wood, was utterly destroyed by fire on more than one occasion, but it was always rebuilt, though not always without grumbling on the part of the ecclesiastical authorities who had to find the funds. For the traditional sentiment which regarded the treatment of the sick poor as a duty of the monastic world was still of sufficient force to induce

Peter to lay the burden of building the new hospital on the Monastic *Priказ*, and of rebuilding it after the fire in 1722 on the Holy Synod—the successor of the Monastic *Priказ*.

The history of the hospital during the first fifty years of its existence is one of constant difficulties with the church authorities, who grudged the expenditure on an institution over which they had no direct control, from which they derived no benefit, and which was used almost entirely for sick and wounded soldiers. They argued, not without reason perhaps, that the military, rather than the ecclesiastical, authorities should bear the expense. The hospital suffered accordingly. The doctors complained of the shocking state of repair of the buildings and want of room for their patients. The Synod refused to give any more funds and referred the doctors to the Senate; the Senate replied that the Synod, as the direct successor of the Monastic *Priказ*, which had paid for building the hospital, was bound to maintain it. And so between Synod and Senate the buildings slowly went to ruin. At last, however, the Synod gained its point, and in 1754, on the same day that the Empress Elizabeth signed the ukase founding the University of Moscow, the hospital and medical school passed over to the Military *Collegium*—the War Office of the period. Meanwhile, the *Aptekarski Priказ* had undergone a series of changes and reformatations. In 1672 its name was altered—it became the *Aptekarskaia Palata* or Chamber; in 1714 the word Chancellery was substituted for Chamber; in 1725 it was again re-named the Medical Chancellery; and finally, in 1763 in the reign of the Empress Catherine, it became the Medical *Collegium*. Under Peter the Chancellery, which was removed to the new capital on the Neva in 1712, had as its head an official known as the *Archiatr*, reviving an old Roman title.¹⁶ The first *Archiatr* was a Scotchman, Dr. Robert Erskine; he lived in St. Petersburg, and apparently scarcely knew of the existence of the new medical school and hospital in Moscow. Neither he nor his successors ever visited it, although some of them seem to have watched its work, for they sometimes blamed Bidloo for the slowness with which his students passed through their curriculum. They also to some slight extent controlled the school and its diplomates, whom they drafted off to the army and navy as fast as they could qualify.

The Medico-Chirurgical School, as it was called, was in the meantime slowly getting under way. There were many difficulties to overcome, and the full complement of fifty students was not reached until 1712, five years after the school was opened. The Russians hesitated to send their sons to what they naturally regarded, with many other of Peter's introductions, as at best an outlandish institution, entirely out of keeping with their customs and ideas. But, as has already been seen, a medical career at that time was very lucrative and honourable, and if the Russians themselves at first held back, the foreigners settled in Moscow and St. Petersburg were by no means unwilling to send their sons to Bidloo for a medical education. Ignorance of the Dutch language was no obstacle, for Latin seems to have been the language employed in the hospital and school, and Latin was freely taught in the boys' schools in Peter's time.¹⁷

Of the internal economy of the medical school and the life of its students some details remain which are not without interest. The students lived in the hospital buildings, occupying thirty-two small rooms on an upper storey, technically called *bourses*. They were divided into three groups according to seniority. They were provided not only with board and lodging, but also with stuff for their clothes. Each boy received seven *arshines* (about five yards) of cloth every two years to make his *kaftan*, or long outer coat, his *camisole*, and trousers. Students of the first class received a better sort of cloth than those of the second, and these than those of the third. No mention is made of linen or underclothing, but each student received a rouble a month in coin, and this sum, small though it may seem, probably had to cover the purchase of linen as well as all other small household or private expenses. The students attended the hospital early each morning, and later in the day came the lectures, or "*collegia*" as they were called. The lectures appear to have been mere dictations which were learned by heart, word for word. The dearth, and sometimes the entire absence, of

¹⁶ The title *Archiatr* was first given by Nero to his Imperial body physicians. Later to the *Archiatr Palatini* were added the *Archiatr Populares*. See Haeser's History of Medicine.

¹⁷ Even Peter's father, the Czar Alexis, is said to have known Latin and to have read without translation the memoranda of his body physician, Dr. Blumentrost, which were written in that tongue.

paper on which to take down the lectures are worthy of mention as an index of the innumerable difficulties which must have blocked the way for the introductions and development of the sciences in those days. The curriculum included quite a wide range of subjects. There was clinical instruction, including the principles of bandaging and surgery. Anatomy was taught; Bidloo wrote a book on the subject and published a splendid anatomical atlas, with illustrations engraved on copper.¹⁸ Peter, as is well known, purchased the famous anatomical museum of the Dutchman Ruysch for 30,000 gulden.¹⁹ Post-mortem examinations were practised, sometimes with a medico-legal object. *Aptekarshaia Nauka*, or the Apothecaries' Science, included botany, pharmacognosy, pharmacy, and pharmacology. The London Pharmacopoeia seems to have been used. Operations were performed on the living and dead. Trephining must have been frequently performed, to judge by its constant appearance as the subject of examination questions at that time. Bidloo was an autocrat like his employer Peter. He had absolute power over everything and everybody in the hospital and school, and very severe punishments were sometimes meted out to the erring student. The severest were imprisonment on bread and water, fettering, beating with the knout, and finally—only for the worst offences—exclusion from the school to serve in the ranks of the army. Drunkenness and brawling seem to have been not infrequent, but they were most strictly punished. The course of instruction varied in length from five to seven, or even to ten, years. The comparative length of the curriculum was due to the conscientiousness of Bidloo, who would not grant to any student a diploma until he was thoroughly qualified, notwithstanding that Peter offered a high premium upon every student who passed. The first issue of diplomas was in 1713, and others followed in 1718, 1723, and 1727. The examinations for the degrees, of which there were two, those of *lekar* and *pod-lekar* (or *sub-lekar*),²⁰ took place in the presence of all the teachers in the school and of medical men from the outside as well.

Such, in brief, is the picture of Russia's first medical school. Not, some will say, a very attractive or striking picture when contrasted with that of a modern medical school; but when the circumstances of the time are taken into consideration, and more especially the material difficulties to be overcome, the prejudices to be soothed away, and the ingrained habits and views of a whole people to be entirely transformed and turned into totally new channels, it becomes a matter for wonder that so much was accomplished in so short a time. An equally detailed picture might be given, did space permit, of the hospital as of the school—not perhaps of its very earliest days, but as it was in 1735. That year was an epoch in its history. Bidloo, its founder and organiser, died. The Empress Anna was on the throne, and on the petition of the then *Archiatre* of the Medical Chancellery the hospital came under the supervision of that body. In the same year was published the "General Regulation concerning Hospitals," an Imperial law which was binding, not only on the Moscow Hospital, but on the other institutions of the kind which had already been built in different parts of the country. From this remarkable historical document it is possible to see the entire organisation of those early, but by no means primitive, institutions. From it may be learned the numbers and duties of the doctors and *lekars* of various grades, of the clerical staff, the dispensers, male attendants, laundresses, cooks, gardeners, brewers, and others attached to the hospital staff; the diet of the patients (by no means an ungenerous one) may be studied in detail, as well as the modes of ventilation and lighting, the nature of the beds and bedding, and many another point of interest, while incidentally something may be gathered as to the commonest modes of treatment then in vogue. On paper the picture is that of a well-ordered, well-organised, and liberally supplied hospital. In practice—at least, in the case of the Moscow Hospital—it is to be feared it was not quite so perfect, and it will be convenient here

to follow very briefly the fortunes of that institution until it lighted on better days at the very close of the last century.

The hospital under the Medical Chancellery was in no way better off, perhaps was not so well off as under the immediate direction of Bidloo, while as regards the sinews of war the military authorities proved to be far less liberal than the Holy Synod had been. For a time, with an able administrator like Baron Tcherkasof at the head of the Chancellery, it prospered; but after his day the whole establishment slowly went to ruin. And this was equally the case with the hospitals which had been built in other Russian towns—in St. Petersburg, Riga, Elizavetgrad, Kherson, and Kiev. When the Emperor Paul came to the throne in 1796 it is said that there was not a hospital in the country in which 200 patients could be safely placed; there was not a ward which did not let in freely both the wind and the rain; and the hospitals were terribly overcrowded, two patients being constantly placed in one bed. Paul visited the Moscow Hospital soon after his accession and was horrified at its condition—so horrified that he at once ordered its reconstruction. This was commenced in 1797, and the new building, with room for 1280 patients, was completed in 1802. A sum of half a million roubles had been assigned for its cost, but the amount expended was something over 650 000 roubles. When the present Army Medical Academy was founded in St. Petersburg in 1799 the Moscow Hospital ceased to be used for clinical instruction. It became a purely military hospital, and as such it exists at the present day. The existence of other Russian hospitals in the last century has just been referred to. It is unnecessary here to mention more than one or two of these institutions. The most important were naturally those in the new capital of St. Petersburg and the adjoining fortress-island of Cronstadt. The St. Petersburg Admiralty or Naval Hospital was solemnly opened by Peter the Great in 1716. Its position was close to that of the present large clinique of the Army Medical Academy. The Dry-land Hospital, *Sukhoputnyi*, so called in contra-distinction to the *Morskoi*, or Naval Hospital, was founded in 1717. It was rebuilt after being burnt down in 1733, and in that year three new medico-surgical schools were instituted, one at each of the St. Petersburg hospitals and one in Cronstadt. From that date all hospitals devoted to clinical instruction were termed *generalnyi*, or general hospitals.

In Catherine II.'s memorable reign quite a number of new hospitals were built. In Moscow she founded the still existing Catherine Hospital, at first intended only for the purposes of small-pox inoculation, but later turned to more general uses; the Pavlovski Hospital, named after her son, who succeeded her as the Emperor Paul; the Goltzlin Hospital, and a lunatic asylum. In St. Petersburg the Obukhovski Hospital—which still exists and is one of the largest of the municipal hospitals in the city—was founded in 1784. A lunatic asylum was founded in the same year. Nor must omission be made of the hospitals or asylums characteristic of the period which the Empress opened for the treatment of secret contagious diseases. At first these seem to have been merely private houses in which patients of the upper classes were received, the utmost secrecy being observed and no questions asked as to the name or rank of the individual. It is worth noting that almost at the same time as the ukase was issued instituting these homes another ukase was signed in which strict orders were given, in the case of soldiers affected with these diseases, to make close inquiry as to the source whence they had acquired it. In 1763 was opened a hospital called the "Secret Hospital," with beds for thirty men and thirty women, and in this, as in the home just mentioned, absolute secrecy prevailed, the very linen being marked with the single word "Discretion."

Another group of institutions no less characteristic dates from the great Empress's reign. Few of those who attend the approaching International Congress in Moscow will fail to visit the famous Foundling Hospital on the banks of the River Moskva. It has long been regarded as one of the "sights" of the city, and is certainly well worth a visit. It is both the largest and the oldest hospital of its kind in Russia, dating from the year 1764. The Foundling Hospital in St. Petersburg scarcely yields to it in size, and is only six years its junior, as it was opened in 1770. These institutions were founded by Catherine with the laudable object of providing a refuge for unfortunate women in childbirth and of saving the lives of the no less unfortunate children they brought into the world.

¹⁸ Positionum Anatomico-physiologicarum. Parts I. and II., Ludg. Batav.

¹⁹ Ruysch wanted 50,000 gulden for the secret of his mode of preparing anatomical specimens, and refused to tell it to Erskine for less. He seems, however, to have divulged it to Peter, who told it to Blumenrost, and after passing through one or two more hands it was published by Krieger, another foreign *leib-medik* at the Russian Court.

²⁰ The title of *lekar* still remains. All persons qualified to practise must have the diploma of *lekar*; the higher degree of Doctor of Medicine is optional. The degree of *sub-lekar* was done away with in 1739.

VI.

The Leading Russian Practitioners of the Eighteenth Century.

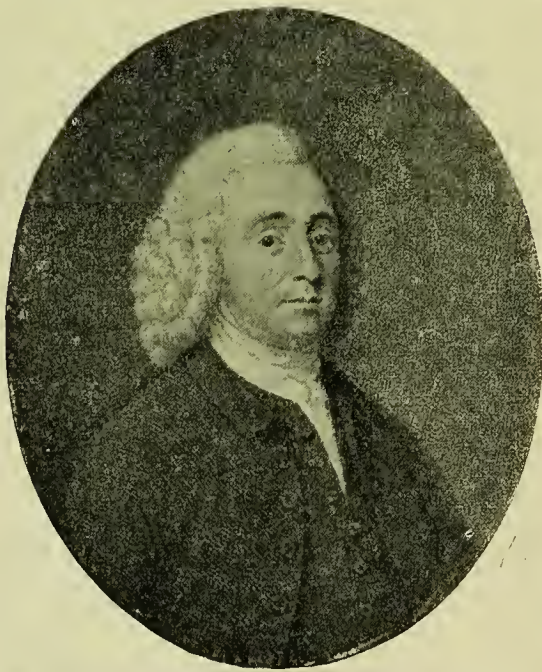
It will be noticed that the history of medicine in Russia has already become more a history of institutions than of individuals, such as it had for the most part been before Peter the Great's time. The names of certain individuals, however, still stand out with sufficient prominence to demand brief special notice. But it will be convenient first to note shortly what can be gathered as to the conditions of medical practice in Russia in the last century. So far as the bulk of the people was concerned, it would seem that for the greater part of the century they were little better off for medical aid than in the earlier periods. The hospitals already described were almost entirely filled with soldiers and sailors. The large majority of medical diplomates from the newly founded schools were drafted off to the ever-growing army and navy. Most of them, too, it must be remembered, were still foreigners, and were mistrusted by the peasantry, who preferred their *znakhars* and *znakharkas*—the "wise men" and "wise women" of the village. Travelling charlatans, popularly known as *Vengertzi*, went about the country and did a thriving trade in pills and potions. They became so numerous that Dr. Blumentrost in 1721 applied to the Senate for a special law against them. It was in that year that he drew up a scheme for the institution of a Medical *Collegium* on the lines of the other *Collegia*, as the Ministries had then come to be called, which should have the entire control of all medical affairs in the empire. Only two of the numerous points in the scheme became law. One of these was to the effect that qualification should be necessary for practice, but though it became law it seems to have remained to a great extent a dead letter.

Of the leading medical practitioners in Russia in the last century the oft-quoted name of Dr. Bidloo must unquestionably occupy the first place. He was the real founder of modern medicine in Russia, for before his time all medical practice was in the hands of foreigners, and it was he who led the way in training the Russians themselves to the medical profession. The second place should probably be assigned to Lawrence Blumentrost the younger. There were three Blumentrosts in Moscow in Peter's time—a father and two sons. The elder Lawrence, a Dutchman, died in Moscow in 1705, before the opening of the medical school. Both he and his eldest son John left less mark upon their time than the younger son Lawrence, who was born in Moscow, and sent by the Russian Government to Germany and Holland for his medical education. Having graduated at Leyden he returned to Moscow and became *leib-medik* to Peter. Many years later he was appointed to the full charge of the hospital. Of the many successive holders of the position of head of the Moscow Hospital, only one other must be mentioned here. Dr. Athanasius Shafonski, a Russian, was appointed in 1769, and in the following year the famous plague of Moscow broke out—one of the worst pestilences perhaps ever known in any city. Shafonski, in his position as head of the hospital, had ample opportunities of studying the disease and he has left an admirable description of it, both from the medical and historical point of view, in a book, now rare even in Russia, which was published by Imperial command in 1775.²¹

Other Russian names which have survived are those of Poletika, a native of Kiev, who ultimately became professor in the University of Kiel—the first Russian who obtained a foreign medical chair; Ambodie,²² a famous accoucheur, head of the Obstetrical Institute, who first introduced the use of the forceps into Russia, and who published the first Russian work on obstetrics; and Shchepin, who taught anatomy and surgery first in Moscow and then in St Petersburg. Baron Tcherkasof, though not a qualified medical man, had attended medical lectures when in England, and ultimately became president of the Medical *Collegium* in Moscow. It was owing to his exertions that in 1764 a medical faculty was added to the University of Moscow, which had been founded ten years previously. The new faculty, however, did not for many years grant degrees. The Medical Chancellery or *Collegium*

was still the sole source of licences to practise, and it was not until 1794 that the first medical degree was conferred by a Russian university.²³ Tcherkasof was distinguished for his patriotism, amounting sometimes almost to Chauvinism. This was shown particularly in his relations to the foreigners, who still predominated in the Russian medical hierarchy. His endeavours were constantly directed to the replacing of them by his own countrymen; and on one occasion he went so far as to induce the Medical *Collegium* to issue a ukase, declaring that foreign doctors were no longer needed now that Moscow had a degree-granting University of her own. The ukase, however, met with a very cold reception and was never acted upon. Tcherkasof's patriotism did not prevent him from loyally coöperating with the famous Dr. Dimsdale, whom, at Catherine's command, he invited from England. Dimsdale was then the greatest authority living on the subject of small-pox inoculation. The story of his inoculation of the Empress herself and the Czesarévitch has been so frequently told that it may be very briefly

FIG. 6.



Thomas, first Baron Dimsdale, M.D., who inoculated the Empress Catherine II. for the small-pox.

recapitulated here. It was in 1763 that Catherine sent for Dimsdale, whose writings had already made his name famous. He went to St. Petersburg, and is said to have passed two months in making preliminary experiments before inoculating his Imperial patient herself. When the time came the greatest secrecy was observed. At 10 o'clock one autumn night a carriage drove up to a side door of the Winter Palace, and from it descended Dr. Dimsdale and the Czesarévitch (afterwards Emperor) Paul Petrovitch, the latter carrying under his furs an infant who was to furnish the material for inoculation. On the following day the Empress retired to Tsarskoé Selo, where she passed through the subsequent malady "with great firmness of mind." A little later Paul was himself inoculated, and when these facts were made public it soon became the fashion in St. Petersburg to be inoculated. The infant from whom Catherine had been inoculated was christened Ospennui, from *ospa*, small-pox. He was made a Court page and granted a patent of nobility, the crest on his coat of arms being a child's arm bearing a large pock-mark, which was perhaps more appropriate than beautiful. He died young, however, and the coat of arms was never borne by anyone but himself. Dimsdale received high honours from the grateful Empress. He was created a Baron, received a large sum of money and

²¹ A full account of this work and its author appeared in the Practitioner for November, 1894.

²² His real name was Nestor Maximovitch (i.e., son of Maxim) Maximovitch, and as his surname and patronymic were identical in spelling (though not in accentuation) he took the name of Ambodie by Imperial consent.

²³ The Empress conferred the right to grant the degree of Doctor of Medicine on the University of Moscow in 1792. The first to obtain the degree, two years later, was Dr. Barsouk-Moiseef.

handsome presents, and was further rewarded by a pension of £500 per annum for life.

To return for a moment to the reign of Peter the Great, the name of Robert Erskine, already mentioned, deserves some further notice. A graduate of Oxford and a Fellow of the Royal Society, Erskine, or, as the Russians re-christened him, Areskin, went to Moscow in 1706 as physician to Prince Menshikov, and it was he who recommended him to Peter. Peter appointed him his *leib medik* in 1713, and three years later he became, as was stated earlier, the first *Archiatr* of the Medical Chancellery. He travelled with the Czar through Germany, Holland, and France, and it fell to his lot to formally propose Peter for the Membership of the Paris Academy of Sciences. In the famous anecdote which relates how Peter was present at, and took great interest in, an operation for cataract performed in one of the Paris hospitals, it was Erskine who was the operator. He was a relation of the Earl of Mar, and—with how much truth need not be discussed here—was charged by his enemies in England with holding treasonous correspondence with the exiled Stuarts. He was able, however, to refute these charges to the Czar's complete satisfaction, and he remained in Russia till his death in 1718. He died at Olonetz, where he had gone to take the baths, and his remains were honoured by a magnificent funeral in the Alexander Nevski Monastery in St. Petersburg, the Emperor himself following in the funeral procession. Throughout the century the names of many other English medical practitioners in the Russian service may be met with. Lewis Calderwood went to Russia in 1728 as surgeon to the famous Preobrajenski Guards; he later held appointments in the Moscow and St. Petersburg Hospitals, and died in 1755. Matthew Guthrie obtained the right to practise in Russia in 1769. Robert Simpson joined the great Admiral Greig's fleet in 1774, and in 1792 became chief surgeon to the large Naval Hospital in Cronstadt. Charles Brown, an Aberdeen graduate, obtained the Russian diploma in 1784, and Samuel Harst, a Cambridge graduate, obtained it two years later. Henry Holloway was surgeon to the Finnish Army in 1788; Charles Stewart was attached to the troops in Poland a little later. Jonathan Rogers was surgeon to the fleet in 1771; he also accompanied a Russian Embassy to Constantinople, and was later surgeon to the Izmailovski Regiment. He returned to England in 1799, but was again in Russia in 1803, and from that date to 1811 was general staff-surgeon to the fleet. In 1806 he published his Russian *Pharmacopœia*.²⁴

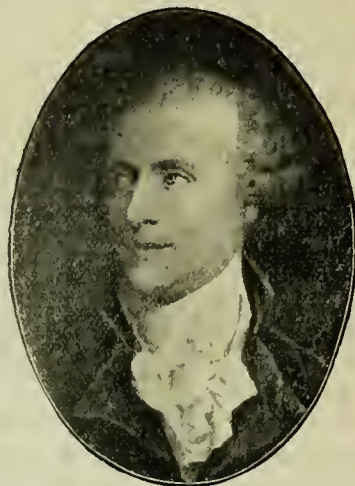
A more diligent inquiry into the records of the time would doubtless bring to light many another name which might well be added to the list. But those here given will suffice for the present purpose, with the addition of but one more, that of Dr. John Rogerson. A native of Dumfries-shire and a graduate of Edinburgh, he went to Russia in 1766 and remained in that country for just fifty years. For most of that time he was *leib-medik* to the Empress Catherine and her successors. He was with the Empress in her memorable progress throughout her realm in the year 1787. The famous De Ségur, the French ambassador, who also shared in the progress, has left a lively description of this journey in his "Souvenirs et Anecdotes." The Scotch doctor was apparently somewhat deficient in a sense of humour, for, according to De Ségur, he was on one occasion seriously offended by a very harmless and ancient jest on the part of the Frenchman. Catherine had at one part of the progress presented Dr. Rogerson with a magnificent sword in recognition of his services. The opportunity for an obvious sally was too good to be missed by the volatile ambassador. "Docteur," he said, "je vous en félicite; vous avez là une nouvelle recette, sûre et expéditive." Dr. Rogerson's name is also enshrined in a couplet written by the Empress on the death of a favourite dog:—

"Ci gît la 'Duchesse Anderson'
Qui mordit Monsieur Rogerson."

Catherine was assuredly no poetess. A brief account of the French Lestocq, whose wonderful career, however, belongs rather to political than to medical history, closes these notes on the medical celebrities in Russia in the last century. The son of a member of the French Reformed Church who had settled in Hanover, he is described as "a man wholly destitute of political qualities, without discretion, and without connexions." But notwithstanding these deficiencies it was he who guided the revolution which in 1741 placed the Empress Elizabeth (the

daughter of Peter the Great) on the throne of Russia. The Empress in return made him her *leib-medik*, and granted him estates and orders and other honours so long as he remained in favour. But those were the days of rampant favoritism, when nothing was certain but the uncertainty of Imperial sunshine, and when nothing was more common for those who had basked in it for a time than to fall in a day—just as many of them had risen the reverse way in a day—from the top to the bottom of the ladder of fortune—to pass from the luxuries of a palace in St. Petersburg to the prospective

FIG. 7.



Dr. John Rogerson, Physician to the Empress Catherine II. From a photograph by Messrs. Wayland of Blackheath. The original picture is in the possession of Mr. James Wilson of Blackheath, by whose kind permission this reproduction appears in THE LANCET.

horrors of an *ostrog* at the months of the Ohi. Such was Lestocq's fate. He kept the Empress's favour for some seven years, but in 1748 the almost inevitable downfall came. He was exiled to Siberia and never returned.

VII.

The Opening of the Present Century; the System of Tchins or "Ranks."

WITH the close of last century and the opening of the present a new era began in medicine, as in most other things in Russia. The Empress Catherine had died in 1796 after a reign of thirty-three years. The erratic Paul, who succeeded her, came to an untimely end in the gloomy palace in St. Petersburg, which still bears his name, in 1801. His reign is noteworthy if only for the re-building of Peter's famous hospital in Moscow and for the founding in St. Petersburg of the great Academy of Military Medicine, which will next year celebrate the centenary of its existence. But the accession of Alexander I., the son of Paul, was a real epoch, from which the Russia of to-day may in some sense be said to date. The new Emperor had not been many months on the throne before a vast series of reforms was instituted, affecting almost every individual and every interest in the empire. With these it is not proposed to deal here, except in so far as they touch upon matters relating to medicine. And, first, it is of interest to note the recognition given to such matters under the new régime. The *Aptekarski Prikaz*, the first medical department of the Government, has already been traced through its various changes of title until it became the Medical College in 1763. As such it remained for the rest of the century, though, so far as may be gathered from the records of the time, its influence during the latter half of the century was but small. But the already existing organisation of this body, such as it was, was taken advantage of by the framers of the new Ministry or Ministries which were instituted by the famous manifesto of Alexander I., issued in September, 1802. The Ministry, as the new machinery of government was collectively called,

²⁴ *Pharmacopœia Navalis Rossica*, Petropolis, 1806.

FIG. 8.



The Moscow Clinique : The Gynæcological and Obstetric Cliniques.

FIG. 9.



The University of Moscow : The Anatomy Institute.

consisted of eight divisions, or what would now be called in Russia, and were even then spoken of as, separate Ministries. Of these, not the least important was the Ministry of Internal Affairs, and it was into a sub-division of this that the old Medical College was incorporated, together with another body which need not be further noticed here.²⁵ After one or two slight changes this sub-division was re-named the *Expédition* of State Medicine, a title which it retained until, in 1811, it received the title it now bears, that of the Medical Department of the Ministry of Internal Affairs.

Prince Kotchubei was the first head of this Ministry, and it was under his direction that a scheme was framed for the institution of another very important body, which, as the Medical Council, has since become the highest medical authority in the land. In its original conception the Council was framed on the lines of an ordinary learned society, but was to be regarded as a sort of consultative body, in which all the best medical learning of the time should be concentrated, and to which the Government could at any time appeal for advice or decisions on questions relating to medicine and those who practised it. It consisted of an indefinite number of members appointed by the Ministry, and these might be foreigners as well as Russians; but all were men distinguished by their medical knowledge and of high general reputation. The dean, or president, was elected by the members for three years, and there were corresponding members, a scientific secretary, and two interpreters attached to the Council.

It will be seen that as early as the beginning of the present century there were in Russia two governmental medical bodies—the *Expédition* of State Medicine and the Medical Council, both attached to the Ministry of Internal Affairs. These two authorities still exist in scarcely altered guises—the first as the Medical Department, the second still as the Medical Council. It would serve no useful purpose here to enter in detail into their functions or the relation they bear to each other. Suffice it to say that that relation was clearly defined. Briefly and in very general terms the functions of the Council were those of a legislative and the functions of the *Expédition* those of an executive body, the division of responsibilities between them being much the same as it is between the corresponding authorities at the present day. The further history of the two central medical authorities until they assumed the form they now have is soon told. In 1810 a considerable number of matters of medical interest came under the Ministry of Education, but only for a time. In 1811 another great change was made in the organisation of the Government, as the result of which a classification of Ministries was introduced, which, with some slight alterations, has remained down to the present day. Though not perhaps bearing directly on the present subject-matter it may be of interest to some readers to state briefly what that classification was and is.

In 1811 the governing authorities were grouped into five divisions, each of which contained one or more Ministries as follows:—1. *External Affairs*: Ministry of Foreign Affairs. 2. *External Safety*: Ministries of War and Marine. 3. *State Economy*: Ministries of Finance, Internal Affairs, Education, and Ways and Communications. 4. *Justice*: Ministry of Justice. 5. *Internal Safety*, Ministry of Police. In addition there was, and still is, an *Upravlenië* (Board of Direction) of foreign religious creeds. Since that date these nine Ministries have become ten, two new ones having been added and one having disappeared. The Ministry of Police was, after a few months' separate existence, absorbed into that of Internal Affairs. The two new Ministries which exist now and did not then are those of the Imperial Court and of Agriculture and Imperial Domains. It was under the new classification of 1811 that the Medical *Expédition* became, what it has ever since been called, the Medical Department, then, and for a few months after, of the Ministry of Police, now of the Ministry of Internal Affairs.

A word may be said here about another department and its curious growth from small beginnings to a useful and important part of the same Ministry. As early as 1804 Prince Kotchubei had felt the want of properly recorded statistical facts and conclusions based thereon, and at his suggestion a small *Obshtchestvo Dvorian* or Literary Society of Nobles, as it was then called, was formed. This consisted of ten members, all highly educated young men of good birth, who undertook, firstly, to keep a historical record of the new

Ministry and all the changes it should undergo, and, secondly, to collect and work out all available statistical information about every "government" in the country. In this way it was hoped to gain more or less reliable statistics of the whole empire. The plan, however, did not work very well, for reasons which need not be entered into. But with the re-organisation of the Ministries in 1811 a fresh impetus was given to the movement. It was proposed to form a separate statistical society, but it ultimately took shape as the Statistical Department of the Ministry of Internal Affairs—a name which defines with sufficient clearness for these brief notes its objects and functions. The use of such a department as ancillary to that of State Medicine is obvious.

And now, having traced the two central medical bodies from their early beginnings to their present state, it becomes necessary to give a brief account of them as they now are, of the duties they discharge, and of their relation to each other. The Russian Medical Council is expressly defined in the Imperial Code of Laws as "the highest medico-educational, medico political, and medico-legal authority in the empire." It consists of a president and an undefined number of members. Certain highly-placed medical officials in other departments are *ex-officio* members—namely, the director of the Medical Department of the Ministry of the Interior; the heads of the Army Medical and Navy Medical Departments; the medical inspector of the important group of philanthropic institutions founded by, and bearing the name of, the Empress Marie, the beneficent consort of the Emperor Paul; one representative each of the Ministries of Education and Finance; and some others. The remaining so-called consulting members, *sovétshtchastelniki chlenovi*, are chosen for their ability and reputation from among the higher ranks of medical *technovniks* or officials. The Council meets twice a week and deals with a vast number of subjects, some of which may be briefly noted, but which are too numerous to name in full. First, there is a group of subjects which would naturally be expected to come under the decision of such a body. Such are the censorship of medical publications and advertisements; the issue of orders and regulations in regard to epidemic infectious diseases; the granting to foreigners of licences to practise; the supervision of all medical reports and observations; and the payment of pensions to medical officials. A second group of subjects may be named separately, though the line dividing them from the first is but an ill-defined one. There are matters which, though dealt with by the central authority in Russia, might be, and in some other countries are, dealt with by individual persons or institutions. Of these may be mentioned the investigation of new discoveries in medical science; the analysis of Russian natural mineral waters and instructions as to their use; and the revision of evidence in inquiries into cases of sudden death. All matters are brought before the Council either by the Minister or one of the directors of departments, and a simple majority decides, the president having a casting vote. The president, who must be a medical graduate, is nominated by the Minister and confirmed by the Emperor. At present this important post is held by Professor Pashutin, who is also *natchalnik*, dean or director, of the Imperial Academy of Military Medicine. The Medical Department of the Ministry of Internal Affairs consists of a director, a vice-director, and a certain number of sections, and it deals with a great many different matters which are grouped under the heads of civil medicine in general, legal medicine, and medical police. There is a catalogue of no less than forty-seven such matters, of which obviously only a small minority can find mention here, and as a type may be named the distribution of all qualified medical men, veterinary surgeons, and pharmacutists who leave the Universities or the Army Medical Academy (the sole licensing bodies, as will be shown presently) and enter the public service. The appointments of all medical *technovniks*, or officials, whether in towns or *uyezds* (districts), whether to the local governing bodies (the *zemstvos*), to mineral spas, to the police, to quarantines, factories, or any other institution which comes under the civil administration, as well as their remuneration and removal, are in the hands of the department. In addition, all civil hospitals, all druggists' shops and druggists, and all certified midwives are under its more or less direct control, as are public vaccination, the carrying out of measures to check epidemics, and the tabulation of statistics of disease and mortality throughout the empire. These are a few of the subjects with which the

²⁵ This was the *Prikaz* of Social (or Communal) Supervision, which was a sort of Board of Charity Commissioners, and which did, and still does most useful philanthropic and charitable work.

department has to deal. The present holder of the responsible post of director of the Medical Department is Dr. Lev Ragozin. The department publishes a monthly journal called the *Messenger of General Hygiene and Legal and Practical Medicine*, a magazine which, in addition to the official statistics and announcements of the month, contains a large number of original articles and of references to foreign current medical literature. An annual report of the department is also issued. This contains the illness and mortality statistics of the whole empire—a vast mass of figures arranged in elaborate tables—and also the returns of the vaccination stations and the other numerous institutions, some of which have already been named, under the department's jurisdiction. The report is rather larger than our own Registrar-General's annual report. In addition to the Medical Council and Medical Department, the Ministry of Internal Affairs has attached to it a Veterinary Committee, under whose control are all matters connected with disease in animals.

In the course of this chapter the Russian word *tehinovnik* has occurred more than once. It has on each occasion been translated as "official," but a few words of explanation may perhaps make the exact meaning of the term more clear. It must be premised that the whole machinery of administration, whether central or local, is in the hands of a body of officials, who form collectively, perhaps, the largest and most powerful bureaucracy in the world. The system may be roughly conceived as a triangle, with the Chancellor of the Empire, in the first class, at the apex, and each successive rank containing more and more individuals. The *tehinovniks* are divided into fourteen ranks or *tehins*, each rank, whatever the profession or calling of the individual, corresponding with some rank in the military and naval services. The whole system of *tehins* dates from the time of Peter the Great, whose object in instituting it in 1722 was a laudable one. In his day there was but one class of nobles—those whose sole claim to nobility was that of heredity, a heredity untempered by the law of primogeniture—with the result that the most remote descendant of a "noble" still claimed nobility, to whatever walk of life he had actually descended. It was Peter's object to replace this class of nobles by another whose claims should be those of real service done to the State or to the Emperor. In this he did not succeed, as the old class of nobles with the old form of heredity still remains, but he succeeded in adding to them a new class of nobles. This he did by decreeing that among civil officials, or *tehinovniks*, as they were henceforth called, the first four ranks should confer hereditary nobility, and those from the fifth to the ninth personal nobility. In the army and navy the hereditary nobility was conferred by the first six *tehins*, and personal by the last eight. The preference given to the army and navy is thus seen in the fact that in them all the fourteen ranks carried nobility with them, while this is the case with only nine out of the fourteen civil grades.

Those who are curious in such matters may be interested to know that a doctor of medicine belongs to the eighth *tehin* (that of *Assesseur de Collège*); that he ranks with a major in the army and a lieutenant-captain in the navy, and is entitled to be addressed as "*Vashé Vuisokrodié*" ("*votre haute-naissance*"). A *lékar*, on the other hand, or holder of the lower medical qualification, only ranks with a captain in the army and a lieutenant in the navy, and is addressed as "*votre haute-bonne-naissance*" only—a longer title, but one conferring less honour on its recipient. A university student, who must have passed out of one of the State *gymnasias*, has already his foot on the ladder of ranks as a member of the fourteenth class. And it is open to the medical man to rise to almost any rank. His services to the State may be rewarded by the honorary title of Privy Councillor or Actual Privy Councillor, titles which raise the bearer to the third and second ranks respectively. Or he may receive from the Emperor some decoration which will give him an almost equally high position. Mere length of service, too, entitles the Government medical official to a rise in rank; thus, after four years' honourable service he would rise one step higher than that he had previously occupied; but the highest *tehin* attainable in this mechanical way is that of Privy Councillor, which occupies the third class in the table of ranks. Service in more remote parts of the empire, such as Siberia or Central Asia, entitles to a quicker rise, two days counting as three, or three as four, as the case may be. But to enter into all the intricacies of the great system of *tehinovism*, even

only so far as they affect medical men, is an absolute impossibility. The laws and regulations relating to it fill a volume of themselves.

VIII.

The Medical Bureaucracy in Russia.

It will be convenient here to give a brief sketch of the medical bureaucracy as it now exists in Russia. Naturally the highest places are occupied by the two central authorities just described, the Medical Council and Medical Department. Many other central institutions, such, for example, as the Medical Chancellery of the Ministry of the Court, the Medical Faculties of the Universities and the Army Medical Academy, the medical officers to the "Institutions of the Empress Marie,"²⁶ and the Medical Departments of the Army and Navy, fill high positions, as so also do the physicians or *leib-mediks*, surgeons or *leib-chirurges*, and specialists appointed to the Imperial family. It is not, however, proposed to consider these here. Here we propose to give a brief outline of the public medical service—that is to say, the service which in town and country is responsible for the public health of the people and for free medical aid to the poor. In no other nation is the distinction between urban and rural communities so marked. The towns are separately considered by the law from the country; so that every town has its *golova*, or mayor; its *duma*, or town council; its *uprara*, or executive board; and to these and the police are entrusted the organisation of a sanitary service and the provision of hospitals and dispensaries for the poor. The details of the law are not the same for all parts of the country, and some large towns, more especially the capitals, have entirely distinct organisations of their own in this respect. Both Moscow and St. Petersburg may well be proud of their immense municipal hospitals and dispensaries and of their public health services, which have done so much, and are still doing so much, to provide for the sanitary needs of these rapidly growing cities. It may be asserted without hesitation that some of these hospitals²⁷ will prove veritable revelations to many foreign visitors to the International Medical Congress, whose knowledge of Russia and her institutions may be of that vague and inaccurate, even if not prejudiced, nature which is but too common.

With this reference to urban resources, we pass to a subject which is in some respects of greater interest, as it presents many points more characteristic of the nation—that is, the public medical service in the country districts, and more particularly among the peasants, who form so large a majority of the population. To make this quite clear a brief account of the system of local administration which prevails in Russia is absolutely essential. It shall, however, be as short and concise as possible.

The whole country of Russia (or so much of it as is not under military rule) is divided for administrative purposes into "governments" (*gubernii*) and "provinces" (*oblasti*). Each²⁸ of these, again, is divided into "districts" (*uyezds*), which are again sub-divided into "towns" and "rural volosts"—a *volost* being made up of an indefinite number of village communes or *mir*s. Now each of these divisions and

²⁶ These institutions have already been briefly referred to. The Russian empresses and princesses have ever been, and still are, foremost in promoting good works of all sorts, and those of two sorts they have taken under their special protection—namely, institutions devoted to charity in any form and those connected with the education and interests of women. It is just a hundred years since, in May, 1797, the Empress Marie, the wife of Paul, took, with the Emperor's consent, all such institutions under her immediate patronage, and each succeeding empress has shown the greatest interest in the welfare of the "Institutions of the Empress Marie," as they have ever since been called. Only a very few of these can be named here. Among those devoted to charity may be mentioned the immense Foundling Hospitals in St. Petersburg and Moscow, hospitals, orphanages, and refuges for the poor of all kinds and descriptions; and among those devoted to the interests of women, the Xénia Institute in St. Petersburg and a vast number of schools and *gymnasias* for girls in all parts of the country. There are in all 539 charitable and educational institutions under the board of management (which is practically a Government department in itself). The voluntary subscriptions received during the past fifteen years have amounted to over 12,000,000 roubles, equivalent to an annual sum of 800,000 roubles, or over £80,000.

²⁷ And not only the hospitals, but the many other medical institutions, some of which will be described in detail, but many of which must escape mention from want of space. Such, for example, is the Imperial (Oldenburg) Institute of Experimental Medicine in St. Petersburg.

²⁸ This description applies only to those parts of the country in which the system of *zemstros* has been introduced. This has now been done in a majority of the "governments" of European Russia.

sub-divisions has its governing body. The "government," as the largest division, may be taken first. Each government is administered by a council, or *gubernskoe zemstvo*, an executive board, or *gubernskaia uprava*, and a "committee for peasant affairs." The functions of these bodies need not be considered except in so far as they deal with medical matters. To each government *uprava* is attached a medical board (*vratchebnoe upravleniye*), consisting of a medical inspector and his assistant, a pharmacist, a secretary, and a consultative board, to which any number of medical men, even unofficial practitioners, may be added. These medical boards have very considerable powers, and can decide many important medical and sanitary matters without reference to the Central Medical Department, to which, however, they are ultimately responsible. Here are some of their duties and responsibilities. All medical men, whether officials or private practitioners, all *feldschers*, all midwives, all druggists and their shops, and all civil hospitals are under their more or less direct control. In their care is always a sufficient store of surgical instruments which the central authorities provide free of cost, and which the boards are allowed to lend whenever required to any medical man, whether official or in private practice, under, of course, proper guarantee for their return. All medical practitioners in the "government" are by law enjoined to make monthly returns to the board of all cases of illness and death which have been under their care, whether in or out of hospital. As a matter of fact, this injunction is to a large extent not carried out, and in the majority of instances yearly instead of monthly reports are returned, while in many instances, especially in the case of private practitioners, the instruction to return cases of illness as well as of death is not complied with. It might, indeed, be seriously questioned whether such monthly returns of illness would serve any useful purpose, particularly as the returns of acute infectious cases are separately provided for. The Medical Department publishes annually the figures of some 26,000,000 cases of illness which have been registered, but in a population of nearly 130,000,000²⁹ this obviously does not represent the true totality of sickness. All public health measures, the medical topography of the government, the control of lunatics, in a word, all medical and sanitary matters come under the jurisdiction of the board. The mode of procedure is defined with very great exactitude in the Medical Code of Laws,³⁰ or by different regulations which have been issued from time to time to cover particular cases. It may be added in passing that the whole medical law of Russia, with these various regulations now collected for the first time and inserted under the paragraph of the law to which they bear reference, is in course of publication. The first of the three volumes to which this great work will ultimately extend has recently been issued and is a model of careful editing. It is unnecessary to enter here into the methods by which the multifarious duties of the government medical board are carried out. It is sufficient to say that the activity of the board is to a great extent concentrated in the person of the inspector, who is directly in touch with, and responsible for, the institutions and individuals under the board's control. As in the case of the board, so in that of the inspector, the law is so worded that the widest interpretations may be put upon the duties of both.

Such, in brief, is the provision made for dealing with medical matters by the "government," or largest division of the land. The next smaller division is the *uyezd*, or district. This is administered by a council or *zemstvo*, an *uprava* or board, and a committee for peasant affairs, just as a "government" is. But the district has no medical board. It has, however, at least one official, *uyezdnyi vrach*, or district medical officer, and a certain number of veterinary surgeons and *feldschers*, or trained medical assistants. There are also a committee of public health and a vaccination committee (*komitet obshchestvennago zdoravia i ospennui komitet*). The constitution of these two committees is very similar; that of the first may be taken as a type. It consists of the "leader of the nobility" of the district, the *ispravnik* or police commissary, the police master, the district medical officer, the mayor of the town (the capital town of the

district), and the senior priest of the district, thus representing a considerable number of different interests and classes of society; other members may be added, such as local estate-owners, doctors, priests of different religious creeds, and so forth. Both the committees work in conjunction with the government medical board, and have immediate control of the sanitary and medical interests of the district.

As already stated, the *uyezd* is made up of a number of *volosts*, these again consisting of a collection of village communes. But lower than the *uyezd* the law does not provide for any medical appointments. The district medical officer is, so to speak, the ultimate unit in the medical bureaucracy, and in view of his responsibilities and of his isolated position in the country the Ministry of the Interior has made provision for a more prolonged course of medical instruction in his case than in that of the ordinary medical graduate. For this purpose a certain sum of money is set aside annually which enables the Ministry to send a selected number of these officials to St. Petersburg or other university towns for further post-graduate study. This is also done in the case of the government medical inspector, who of course occupies a much higher position and one of much greater administrative responsibility than that of the district medical officer. Both these titles are only gained after severe examination in the universities, and both appear in the list of medical degrees attainable at a university, as will be explained hereafter. Few questions have been the subject of more controversy than those connected with this appointment of district medical officer or *uyezdnyi vrach* and the duties he has to fulfil. Touching as it does upon economic questions of the highest interest, the subject is one that might well claim more detailed treatment than can, from exigencies of space, be given to it in these notes. Here it must suffice to state the problem in its simplest terms, without any attempt at determining the solution of it.

Ignoing for the moment the towns, and also certain special parts of the country, such as the Caucasus, the Cossack Territory, and Central Asia, Russia may be said to be inhabited by a peasantry—a peasantry which six-and-thirty years ago was in a state of absolute serfdom. The law of Feb. 19th, 1861, emancipated them from this condition, and subsequent laws³¹ have provided a system which has given them large powers of local self-government combined with ultimate responsibility to the central authorities on the Neva. With the newly acquired freedom came newly acquired responsibilities and a corresponding need of increased education to meet those responsibilities. It would be idle to assert that education has advanced with the need of it, and few will be found to deny that the Russian peasantry is practically an uneducated peasantry. With absence of education are inevitably joined a degree of superstition and a ready credulity on all matters outside the individual's narrow circle of knowledge. In bare terms it would be harsh and unfair to describe the Russian peasantry as uneducated, superstitious, and credulous without mentioning their many good qualities. A deep religious faith, no lack of practical intelligence, and plenty of common sense in questions within his own immediate ken, added to a simple kindness—an inexhaustible fund, indeed, of what may be comprehensively termed "human nature,"—these are some of the qualities which make the Russian peasant quite one of the most attractive and sympathetic of all peasants. It is the provision of this peasantry—who, be it remembered, are for the most part scattered over wide areas of country—with a system of medical aid which shall be at once effective, prompt, free of cost to the peasants, and not too ruinously expensive to the local authorities, which constitutes the problem these authorities are called upon to solve, for it is largely on the local governing bodies that this duty falls. The law only provides that every *uyezd* shall have at least one medical officer, but it is clear that in the great majority of instances this number would be totally, even absurdly, inadequate, and it is left to the *zemstvos* to make up the deficiency according to local needs. The greatest practical difficulty with which they are met is the scattered nature of the population with which they have to deal. There are, roughly, two main systems of providing medical aid, each of which has its advocates and its opponents. In one, the so-called "stationary"

²⁹ The preliminary report of the census carried out in January last has just been issued and states that the total population of the Russian empire was then 129,211,000.

³⁰ *Ustav Vratshelnice*, or Medical Statute; being the twelfth volume of the *Svod Zakonov* or Collection of Laws. The last edition was that of 1892.

³¹ Notably those of Jan. 13th, 1864, which instituted the system of *Zemstvos*, and of July 12th, 1889, which introduced the local committees for peasant affairs.

(*statzionarnui*) system, the medical man lives either in the "district town" or in some village in his own division of the district; he there receives all patients who have need of him at certain fixed hours of the day, and only pays visits in case of necessity. In the other, the so-called *raziédnuí*³² system, the medical men live in the central or "district" town, and, the district being parcelled out into divisions, they visit in turn every part of it on given days of the week or month. Under this system each village has its fixed day, perhaps twice in a month or oftener, when "the doctor" will be there to receive patients at a room in one of the cottages fitted for the purpose, or, if necessary, to visit them at their own homes. During the interval his patients are in the hands of a *feldscher*, whose functions will be defined later.

And now it will be asked, How do these systems succeed in practical working, and do they provide the peasantry with an adequate medical service? The answer must be "yes" and "no"—qualitatively, "yes"; quantitatively, "no." As far as

follows. In a total population then reckoned at 110,000,000 (and the results of the recent census show that the total was considerably larger) there were 18 334 medical practitioners of all kinds, including those in the army and navy. There was, therefore, one doctor to every 6000 inhabitants. Further, when the towns were excluded and the rural population alone considered, it was found that the proportion of medical men was reduced to 1 in 9000; that in some districts it sank to 1 in 12,000; while in the whole government of Archangel there were but 14 doctors to 373,000 inhabitants. Slightly more recent figures which have since become available show practically no increase. From these figures, then, it is clear that at least in many parts of the country there is an insufficient supply of medical men. It will naturally be asked whether, in those parts of the country where there are no medical men or only an inadequate number, the peasants, all or some, are left without medical aid of any sort whatever. This, however, is not altogether the case, for there is in Russia, in

FIG. 10.



The Moscow Clinique: The Clinique for Diseases of Children.

quality is concerned the *uyezd* medical officer receives the highest university education; he is doubly a university graduate, for after obtaining the ordinary medical degree he proceeds to the further examination for the "Service" degree of *uyezdnuí vratch*. Nor would it be possible to find a more conscientious, more devoted class of official. But so far as quantity is concerned it must be at once admitted that the supply of fully qualified medical aid to the Russian peasantry is inadequate. A few figures showing the number of medical men in the empire and their proportion to the population will suffice to prove this. According to an indisputable authority³³ on such matters the figures for 1890 were as

addition to the class of fully qualified medical men, a second class of practitioners drawn from a lower social stratum and passing through a more restricted curriculum. As a matter of fact, *feldschers*, as these secondary practitioners are called, are more numerous than regular practitioners in Russia. So important, indeed, is the part they play and so thoroughly national is the whole system of *feldscherism* that they deserve a brief chapter to themselves.

IX.

The Feldscher.—Feldscherism Described and Discussed.

It would appear to be a fact that Russia is the only country in Europe in which the principle of a secondary or subordinate class of medical practitioner is admitted. Some other countries may still in practice countenance the

³² From "*raziédjat*," to drive round.

³³ M. Anitchkof, a State Secretary (literally Companion of the Minister) for Education, adduced these figures in his address at the opening of the new Medical Faculty in the New Russia University in Odessa in September last.

existence of licence-granting bodies whose examinations require a minimum of medical knowledge to pass; but their diplomates belong practically to the same great social group as graduates with the highest university degree—the group of qualified medical practitioners. There is no secondary class bearing a different title, with a less thorough training and with inferior rights of practice. But in Russia there is such a class, and as the resulting system has been severely condemned by some critics and no less warmly defended by others, it has become a subject of frequently recurring controversy, and therefore merits some consideration here. There are two types of *feldscher*, the military and the civil. The latter will be chiefly considered here, but it is practically almost impossible to separate the two groups from each other, for a large number, even a majority, of civilian *feldschers* are, as a matter of fact, men who have once served in the same capacity in the army. Their very name, *feldscher* (which is, of course, the German word for army surgeon incorporated bodily into the Russian language), as well as their history, indicate clearly that the system was originally a military one, and their employment in civil life only a later development.

The origin of the system in the army is rather a curious one. It dates as far back as the early decades of last century and came about in the following way. It may be remembered that in a previous chapter, among the punishments mentioned as meted out to erring students in Peter I.'s Medical School in Moscow, the most severe was expulsion from the school to serve in the ranks of the army. A somewhat less drastic punishment, one reserved especially for students who persistently failed to pass their examinations, was to send them to serve, not in the ranks, but as blood-letters and barbers to the regiments. These were the earliest *feldschers* in Russia. This class of half-doctor, half-nurse, was found to be of real use in the army, and later a second supply of them was found. It seems that at that time the nursing of the patients in the hospitals was entirely done by the students—an arrangement which, of course, materially interfered with their medical studies proper. To obviate this the experiment was successfully tried of sending annually a certain number of boys, the sons of soldiers, to the hospitals to be trained in the arts of blood-letting, dressing of wounds, and nursing generally. In this way the students were set free from nursing duties, and a new class of army *feldschers* was formed. But these were still, it will be noted, entirely a military class, either nursing in the military hospitals or attached to regiments in the field. The civil *feldscher* is, in fact, only a recent growth of the present century, and dates from that great period of reform which followed the emancipation of the serfs in 1861, and the institution of the system of *zemstvos* a few years later. Even now the majority of *feldschers* in civil employ are drawn from the so-called "regimental (*rotinnii*) *feldschers*"—that is to say, men trained in the military hospitals or lazarets, as distinguished from the "school (*shkolnii*) *feldschers*," or men trained in the army schools. These schools, of which there are four (in St. Petersburg, Moscow, Kiev, and Tiflis), turn out a more thoroughly trained class of men than the so-called regimental *feldschers*, but the latter are far the more numerous. Of schools for educating civilian *feldschers* there are altogether twenty-one in Russia.

It will be interesting and essential to the right understanding of the *feldscher's* position to note briefly what is the course of training in these schools. To begin with, then, the school will generally be found attached to some large hospital in one of the central towns of a "government." The education begins early, pupils being taken generally at the age of thirteen years. As the boys are mostly drawn from the less educated classes of the population the first subjects they are taught are those of ordinary school education—scripture, history, arithmetic, Russian, Latin, writing, geometry, and geography. Later come the more advanced and the professional subjects proper. Of these an immense list is mentioned as included in the curriculum—botany, zoology, physics, anatomy, physiology, chemistry, pharmacology, pharmacy and pharmacognosy, pathology and therapeutics, surgery, diseases of children, eye diseases, ear and throat diseases, hygiene, epidemiology, venereal diseases, skin diseases—in a word, all the subjects required for a full medical degree. While the programme of a *feldscher* school includes all these subjects in full detail it is obvious that in the four years available only the elements of

these sciences can be taught, or, at least, retained by the pupils. The last two years are spent in practical work in the wards. Here the work is mainly confined to the duties of nursing and of dressing the surgical patients; the physical examination of medical cases is also taught, and, it may be added, post-mortem examinations are attended and taken part in by the student. At the end of the four years the qualified *feldscher* leaves his school with a certain amount of medical knowledge and with certain more or less defined rights and privileges. These vary slightly with different schools, the diploma of each school bearing with it certain privileges which are stated in the *ustav*, or statute, of the particular school. Here, for instance, are the privileges—which are equally duties—of *feldschers* with the certificate of one of the central schools, that at Mogilef:—

"*Feldschers* of this school have the right to act independently in the following circumstances: (a) they may give the necessary aid in acute and dangerous cases in places where there are no medical men, but on the first opportunity it is their duty to inform the district medical officer (*uzvednui vrach*) of the case; (b) they may act independently on the appearance of epidemic infectious diseases, such as cholera, scarlet fever, small-pox, measles, or typhus, but they should at once give information to the district medical officer and get instructions from him; (c) they may perform small operations, such as blood-letting, vaccination, the setting of fractures or dislocations, &c.; (d) they may act independently in cases of acute poisoning or threatened death from other causes; (e) they must act generally in accordance with instructions issued by the Medical Department. With permission of the district medical officer *feldschers* of this school may take charge of small *volost*²⁴ hospitals (in large, scattered districts), but they must present weekly returns of such hospitals to the district medical officer, and the control of the hospital is under the supervision of this officer."

The rights here mentioned may be taken as fairly typical of those conferred by all the Russian civilian *feldscher* schools, and they give a very fair picture of the sort of duties which a *feldscher* is expected to fulfil. As will be seen from the second paragraph, he may be in sole charge of small hospitals, and not only is this often the case, but he is also not infrequently in almost sole medical charge of the population of a large district. Not, of course, immediately after leaving his school, for it is clear that a youth leaving the *feldscher* school at the age of seventeen years, after a four years' course, part of which was devoted to ordinary school subjects and only two years to practical work in the wards, could not be regarded as qualified to take the sole charge of patients. Possessed of that little knowledge which in medicine, more perhaps than in anything else in life, is a dangerous thing, some further training is essential if the *feldscher* is not to be more active for harm than for good. The next step in his career, therefore, as a rule, is for him to become attached to some hospital, when he occupies a really useful position, somewhere between the positions of a male nurse and a house surgeon. Here the *feldscher* may spend the rest of his life, or he may in time become appointed by a district *zemstvo* as the sole permanent medical adviser to the peasant population in some country district. In most parts of European Russia he will have the advantage of the advice and control of the district medical officer. Nominally, indeed, the health of the whole population of the district is in the hands of the medical officer, whose orders the *feldscher* carries out during the intervals of his superior's fortnightly visits. But practically in a large number of instances the terms above used are nearer the truth, the *feldscher*, living on the spot, being the real permanent medical adviser, the district medical officer, who visits the village at stated intervals, having only a consultatory and controlling influence.

The whole question of the system of *feldscherism* has been, and still is, hotly discussed in Russia. There are those who affirm that the system is the very foundation-stone of the whole structure of *Zemshaia Meditsina* (or medical aid to the peasants at the cost of the *zemstvos*), and that were it done away with the peasants who have a voice in the *zemstvo* would not vote another *kopec* towards maintaining the structure. According to those who hold this view, the peasants regard the *feldscher* as an institution peculiar to

²⁴ A "volost," as has been explained, is a collection of village communities for administrative purposes.

themselves and one not lightly to be done away with. "The doctor," they will say, "oh! he is the gentleman's doctor, but the *feldscher* is the *moujik's* doctor." On the other hand, there are equally acute observers who hold quite a contrary opinion. The peasants, according to this school of observers, are only content with a *feldscher* when they have never had the opportunity of being treated by a doctor. Provide them, they say, with properly qualified medical aid and they will at once take the fullest advantage of it; they even now mistrust the *feldscher*, and much more willingly submit to the advice of the medical officer. *Feldscherism*, according to this view, far from being the keystone of a successful system of medical aid, is the greatest stumbling block to its development in the right direction.

It is, perhaps, rash for a foreigner to attempt to decide on the value of any national institution or custom, and the one under consideration is a thoroughly national institution—a system found in no country outside the frontiers of Russia. This is, indeed, in the eyes of those who uphold the system, one of the strongest arguments in its favour. They are proud of the fact and assert that in this way Russia has solved a problem with which all nations are faced, but of which no other nation has found a satisfactory solution. They declare that even in those countries, such as England, with the largest number of medical men in proportion to the population, there will still not be enough, and many of the people will remain without medical aid or seek that of druggists and unqualified practitioners. In Russia druggists are strictly forbidden to give medical advice; unqualified practice and charlatanism are common enough, "wise men" and "wise women" existing in every village; but it is as a counterbalance to these, it is as a means of preventing the peasant falling into such hands, that the system of *feldscherism* is so highly lauded by those who approve of it. The argument is ingenious and may be readily accepted as far as it goes; but it is not the whole truth. The fact would appear to be that *feldscherism* is at best a compromise—an attempt to solve a difficult problem by half-measures. As a satisfactory permanent solution of the problem it can scarcely be accepted. Medical aid to a population, whether of peasants or any other class of people, if it is to be supplied at all, should surely be of the highest quality possible. In dealing with health and disease, life and death, half-measures have a way of being either useless or worse than useless. What, however, can be truly said in defence of *feldscherism* is that even half-trained medical aid is better than none at all; that as there is an insufficient supply of qualified medical men the peasants would, in the absence of *feldschers*, be entirely at the mercy of the "wise men" or "wise women" of the villages. It may be freely admitted that such a lot would be infinitely, incomparably, the worse of the two. The *feldscher*, if he be an intelligent man—and they are, as a rule, a most intelligent, kindly, willing race of men—gains a great deal of practical knowledge in his hospital and other experience, and this in a large number of simple cases will prove of real value; while the "wise" man or woman (some apology is due to the *feldschers* for mentioning them in the same sentence, and thus even appearing to compare them) is for the most part guided by traditions and superstitions which often lead to the most disastrous and hideous results in practice.⁸⁵ As an important and earnest effort on the part of the authorities to provide the peasantry for the time being with properly trained medical assistance and as an alternative to the mischievous help of "irregular practitioners" the present system may be honestly commended. The *feldscher* is, of course, much cheaper than the doctor, even if there were sufficient doctors available, and this has been shown not to be the case. And regarded as a highly trained male nurse, always working under a medical man, the *feldscher* is beyond question an admirable institution of the greatest use in hospitals and even in villages. But where the present system seems to be less commendable, at least in the eyes of a foreigner, is in the development it has taken in the country districts, where the peasants are often left for

long intervals in the *feldscher's* sole medical charge. This, if it is to be commended, can only be regarded as a temporary measure, corresponding to the transitional economical and intellectual state of the peasantry at the present time. The principle of a secondary class of medical practitioner, with inferior education, training, and rights of practice, appears wrong. It seems probable that its existence is only a question of time, though it must of course be a very long time, for the number of qualified medical practitioners in Russia to reach a point when they shall be accessible to all. There will then be no need of a secondary class of practitioner; the *feldscher*, as such, will disappear, or will remain as an exceptionally well-trained male nurse.

Feldscherism is not likely soon to be done away with; indeed, it is obvious from what has already been said that until the number of medical men can be proportionally increased, to do away with it would be an unmixed misfortune for the peasants. There are at present more *feldschers* than medical men in Russia. The numbers in 1892 (the latest available) were 12,174 (civil) medical men and 16,568 (civil) *feldschers*. In the same year, in the twenty-one civil schools 204 *feldschers* finished their course; but, as already stated, the majority of *feldschers* in the country are trained either in the military hospitals or in the army *feldscher* schools.

A very intelligent man, a Russian army *feldscher*, put into black and white his views on the whole subject of *feldscherism*. His little essay contained much really useful information, some of which has been made use of above, and it ended thus: "Russian doctors not only do not approve of *feldschers*, but they contend with *feldscherism* as with the phyloxera or any other destructive insect. But they cannot possibly do without *feldschers*. There are comparatively few doctors in Russia (say 15,000), and if they were to work unassisted for twenty-four hours in the day, still two-thirds of the population would be left without medical aid."

X.

Russian Universities and Medical Education in Russia.—The Ten Universities.—The Ministry of Education.—The University Authorities.—The Faculties.—The Medical Chairs and Professors.—The Curriculum.—The Degrees, and Mode of Obtaining Them.—State Examinations.—Statistics of the Universities.—The Army Medical Academy in St. Petersburg and Sir James Wylie.

In Russia a medical practitioner must not only possess a diploma, but he must have obtained his medical education and his diploma from a university; in other words, all Russian medical practitioners are university graduates. Licence-granting colleges or schools of medicine or surgery are institutions unknown in Russia; and so also, *à fortiori*, are schools or colleges affording facilities for medical training, though not themselves granting diplomas to practise. It is at the universities alone that students can obtain both training and diploma. There is one apparent exception to this rule, and that is the Imperial Academy of Military Medicine in St. Petersburg, or, as it is more generally called, the Army Medical Academy. Its exceptional nature is, however, more apparent than real, for the Academy may be regarded for all practical purposes as a substitute for the absent faculty of medicine in the University of St. Petersburg, which (since the very recent addition of a medical faculty to that of Odessa) is now the only Russian university without such a faculty. There are, in all, ten Russian universities, including those of Helsingfors and Dorpat (now Yurief), which have only become Russian since their foundation. They may be briefly enumerated, together with their dates of institution and mode of origin. The University of St. Petersburg was opened in 1819 in the reign of Alexander I. It was practically a development, with new organisation and powers, of the former so-called "Principal Pedagogic Institute." The University of Moscow was instituted by the Empress Elizabeth in the year 1755. It is consequently the oldest purely Russian university. The first medical degree granted in Russia was conferred by this

⁸⁵ Quite recently a "wise woman" (*znakharka*) advised a mother to put gunpowder into her baby's eyes and apply a match as a cure for ophthalmia. The mother did it; the ophthalmia was destroyed, but so were both eyes, and the baby died in agony. Another woman roasted her baby in the stove under similar advice. But the horrors of this sort of "practice" are too great to dwell upon. Nor must it be supposed that they are confined to Russia; they would appear to occasionally occur in all countries.

University in 1794. The University of Kazan was founded by Alexander I in 1804. The University of Kharkof was opened a year later by the same Emperor. The University of Novo-Rossiisk (i.e., New Russia), in Odessa, was instituted by the late Emperor Alexander III. in the year 1865 by the conversion into a university of the pre-existing Richelieu Lyceum. This was an important institution which had been founded by the Duc de Richelieu, a French *émigré*, who in 1830 became the first Governor of Odessa. The University of St. Vladimir, in Kiev, was instituted in 1833 and opened in the following year by the Emperor Nicholas I. It took the place of the former Polish University of Vilna, which was suppressed after the Polish rising of 1833. The University of Warsaw dates from 1869, when the so-called *Główna Szkoła*, or Head School, was converted into a university. It has a statute of its own dating from the year of its foundation, and differing from the statute common to most of the other Russian universities. The University of Yurief was known as the University of Dorpat prior to the year 1892. It has been under a Russian statute since the year 1802. The older university was founded by the great Swedish ruler, Gustavus Adolphus, in 1632. The University of Tomsk, the sole one in Siberia, was brought into existence in 1887. It has at present only a medical faculty, but it is expected that very shortly a juridical faculty will be added. The Alexander University of Helsingfors is the successor of the old Finnish University of Abo. This was removed to Helsingfors after the destruction of Abo by fire in 1827. The older university was founded in 1640.

With the exception of the last four in the above list all Russian universities are under one common code of laws or statute, the so-called University Statute (*Universitetskii Ustav*). There have been four such statutes in successive operation during the present century, those of 1804, 1835, 1863, and 1884. It is the last, that of 1884, which is now in force. Under the older statute of 1863 the universities enjoyed wider rights of self-government, and were in general more independent of the State authorities, than is the case under the present law. The relation which the universities now bear to the Government authorities may be very briefly stated before passing on to consider the medical faculties and the course of education provided by them. The universities, as educational institutions, are administratively under the Minister of State for Public Instruction (*Ministr Narodnago Prosviēshchēniia*). For the purposes of this Ministry the country is divided into fifteen districts³⁶ or circuits (*okrugs*), each of which is administered by a curator (*popetchitel*) or representative of the Government. This official is in direct touch with the university as well as with all other educational institutions of any kind whatever that may exist in his district. He has considerable powers, among which may be mentioned the appointment of the deans of faculties and of some other university officials; and he is, moreover, the direct and only link between the Government and the universities, all communications between the two having to pass through his hands. The internal affairs of the university are managed by the following authorities: (a) the rector, the practical working head of the institution; (b) the university council—i.e., all the professors, under the presidency of the rector; (c) the university board—i.e., all the deans of faculties and the inspector of students, under the presidency of the rector; and (d) the inspector of students, whose functions are generally those of a proctor.

A complete Russian university should contain four faculties—namely, a Historico-Philological, a Physico-Mathematical, a Juridical and a Medical Faculty. It will be observed that there is no mention of a Theological Faculty, and, as a matter of fact, the University of Yurief (Dorpat) is unique among Russian universities in possessing such a faculty. A fully equipped medical faculty contains the following twenty-three chairs:—(1) Anatomy; (2) Physiology; (3) Histology and Embryology; (4) Medical Chemistry; (5) Pharmacognosy and Pharmacy; (6) Pharmacology, with prescription-writing, toxicology, and instruction in the use of mineral waters; (7) General Pathology; (8) Pathological Anatomy; (9) Medical Diagnosis; (10) Special Pathology and Therapeutics; (11) Nervous and Mental Diseases; (12) Dermatology and Syphilology; (13) Therapeutic Faculty

Clinique; (14) Therapeutic Hospital Clinique³⁷; (15) Operative Surgery with Topographical Anatomy; (16) Surgical Pathology with Desmurgy³⁸ and instruction upon Dislocations and Fractures; (17) Surgical Faculty Clinique; (18) Surgical Hospital Clinique; (19) Ophthalmology, with Clinique; (20) Midwifery, Gynecology, and Diseases of Children, with Cliniques; (21) Medical Jurisprudence; (22) Hygiene, with Epidemiology, Medical Police, Medical Statistics, Epizootology, and Veterinary Police; and (23) History and Encyclopædia of Medicine.

There are two kinds of professors in a Russian university, the ordinary and the extraordinary (*ordinarnui* and *extra-ordinarnui*). The distinction between them may be made clear by stating that the ordinary professor takes a higher rank than the extraordinary, being entitled to a position in the fifth class, or *chin*, in the system of ranks already briefly explained in Section VII.; while the extraordinary only ranks in the sixth class. The former also receives a higher stipend than the latter, the sums being respectively 3000 roubles and 2000 roubles³⁹ per annum. In the University of Tomsk, in Siberia, these stipends are increased by one-half in consequence of the isolation and other disadvantages of an appointment in that distant city. There is another class of professors to whom allusion must be made; these are the so-called supernumerary (*sverkhshatnui*) professors—i.e., those who are not on the *shtat* or list of professors proper. They may be either ordinary or extraordinary, and are either teachers raised to the rank of professor before a vacant chair offers itself for occupation, or professors who, having served for thirty years, are placed on the retired list, although they continue to deliver lectures. In addition to the professors there are an indefinite number of *privat-docents* in a Russian university. The system, as well as the name, has been borrowed from Germany.

The number of students is not limited. Moreover, it is worth noticing that the number of medical students never has been limited. Even in the stormy period of 1848, when the revolutionary wave which swept over Europe was repeated in the serious student disorders in some of the Russian universities, and when the Emperor Nicholas I. limited the number of students to be admitted to each university to the comparatively low figure of 300, the medical faculties were expressly exempted from any such limitation. For admission to the universities now a student has to present a certificate of proficiency from one of the Government *gymnasias*, or high schools, or from some other school recognised as equivalent by the Minister of Education. Students are allowed to enter only at one period of the year, on or before Aug. 20th (old style), that being the day on which the autumn session or half-year begins. There are two sessions in the year, from Aug. 20th to Dec. 20th, and from Jan. 15th to May 30th. The vacations are consequently of rather less than a month's duration at Christmas, and of nearly three months' duration in the summer. The entering student or freshman must be at once inscribed in one or other of the four faculties. The fees are not large; each student pays a sum of 5 roubles (about half a guinea) each half-year, and an additional sum of 1 rouble for each weekly lecture he arranges to attend—that is to say, that if, for example, he arranges to attend eighteen, twenty-four, or thirty lectures in the week, he will pay 18, 24, or 30 roubles for that half-year.

The full list of medical degrees obtainable at a Russian university is a long one, including, as it does, not only the two ordinary medical degrees, a lower and a higher, found in almost all universities in other countries, but certain other degrees in addition connected with the public services, and

³⁷ The distinction between a "Faculty Clinique" and a "Hospital Clinique," whether Therapeutic (i.e., Medical) or Surgical, is briefly as follows. The first is endowed and supported by the university, and the second usually belongs to the town or city authorities and is only subsidised by the university. The Faculty Clinique is attended by students in their fourth year; in it everything is carried out, as far as possible, in an ideally scientific manner—there is no haste, and students can study selected cases at their leisure. The Hospital Clinique, on the other hand, is attended by fifth-year students, and it is conducted on the lines of an ordinary hospital; the cases are not selected, and men are enabled to learn here the practical working of a large hospital, and in a large general practice.

³⁸ The word "Desmurgia" includes what may be summed up as practical minor surgery and bandaging.

³⁹ A rouble is a little over two shillings. These stipends are equivalent, therefore, to rather more than £350 and rather more than £200 respectively.

³⁶ The fifteen districts are those of St. Petersburg, Moscow, Kazan, Orenburg, Kharkof, Odessa, Kiev, Vilna, Warsaw, Riga, the Caucasus, Turkestan, Eastern Siberia, Western Siberia, and the Amur.

qualifying those who obtain them to hold some of the appointments described in an earlier chapter. The degrees are consequently divided into three groups, called respectively the learned-practical (*utcheno-prakticheski*), learned-official (*utcheno-sluzhebnyi*), and special-practical (*sputzialno-prakticheski*) groups of degrees. In the first group, the learned-practical, there are three degrees—namely, in ascending order of value, those of (a) *lékar*, or practitioner; (b) doctor of medicine; and (c) doctor of medicine and surgery. In the second group, the learned-official, there are also three degrees, those of (a) district medical officer (*uyezdnyi vratch*), whose functions were defined in an earlier chapter; (b) medical member (accoucheur or operator) of a *zemstvo* medical board; and (c) medical inspector to a *zemstvo* medical board (*inspektor vratchebnoi upravui*). In the third group, the special-practical, are the degrees of (a) dental surgeon (*zubnoi vratch*); (b) dentist (*dantist*); and (c) midwife (*poivalnaia babka*). It may here be added that all chemists and druggists, and all veterinary surgeons, are compelled to obtain a diploma by examination conducted in a university before being allowed to practise their calling. Of these many degrees much might be written, but it will suffice here to summarise the requirements of the universities for the two most important degrees, those of *lékar* and Doctor of Medicine, only adding a few condensed notes on the method of conferring the other degrees.

The degree or title of *lékar* is the lowest degree entitling the holder to practise. The curriculum required for it extends over five years, or ten sessions, during which the student must attend lectures in all the subjects in which he is going to be examined at the end of that period. There are class-examinations each session, and, in addition, at the end of his fifth session the student has to pass the so-called "half-course" (*polu-kursovui*) examination before he can continue his curriculum. At the end of the five years the student presents himself for examination for the degree of *lékar*. He must hand in the following certificates:—(a) of attendance at the university for ten sessions; (b) of good behaviour from the university inspector of students; (c) of having passed his half-course examination, with any remarks of the examiners; and (d) detailed certificates from each professor as to the work done by the candidate since the "half-course" examination, countersigned by the dean or secretary of the medical faculty. In addition, the candidate must send in his photograph and the sum of twenty roubles (about two guineas), the examination fee. It will be noticed that in this way the examiners are enabled to gain a very good idea of what sort of work the candidate has done as a student, and this may have some influence on the result of the examination.

The examination is conducted by a Government examining committee or board (*isputatelnaia komissia*) annually appointed by the Minister of Education. The board consists of five members and a president. The subjects of examination are divided into five groups, corresponding to the five members of the board, each of whom appoints the examiners in his particular group. The examiners so appointed may be selected from the professors and *privat-docents* of the same university in which the examination is to take place, or from eminent men, specialists in the particular subject, from elsewhere. In the latter case the choice must be confirmed by the Minister of Education. The following are the five groups and the division of subjects between them:—

First Group: (a) Descriptive Anatomy; (b) Histology; (c) Pathological Anatomy and Pathological Histology; and (d) Operative Surgery and Topographical Anatomy.

Second Group: (a) Physiology; (b) General Pathology; (c) Medical Chemistry; (d) Pharmacology, Prescription Writing, and Mineral Waters; and (e) Pharmacy and Pharmacognosy.

Third Group: (a) Special Pathology and Therapeutics; (b) Nervous and Mental Diseases; (c) Diseases of the Skin and Syphilis; (d) Diseases of Children; (e) Clinical Examination in the Medical Wards; and (f) Clinical Examination in the Skin and Syphilitic or in the Children's Wards.

Fourth Group: (a) Surgical Pathology, with Desmurgy and Treatment of Dislocations and Fractures; (b) Ophthalmology; (c) Midwifery and Gynecology; (d) Clinical Surgery; and (e) Clinical Ophthalmology and Midwifery.

Fifth Group: (a) Hygiene and Medical Police; (b) Legal

Medicine and Toxicology; and (c) Epizootology and Veterinary Police.

The examination in all these subjects is entirely of a *vivâ-voce* or practical character. There are no written examinations in any subject as with us in England. The principal question asked the candidate is drawn by the candidate himself from a halloting-urn, in which are placed a number of slips of paper with questions written on them. The first question drawn may be refused, but there is only a second chance, and the second question drawn must be answered by a candidate who has declined the first. In addition to the principal question the examiners have the right to ask any other reasonable question within the limits of the particular subject. The examiners classify the result in each case as either "unsatisfactory," "satisfactory," or "very satisfactory." Two "unsatisfactory" are sufficient to stop any further examination and "plough" the candidate. For honours, or, as it is called, *lékar s'otlitchiem* (or *cum eximia laude*), it is necessary to obtain at least eleven "very satisfactories" out of the twenty-three subjects, and not one "unsatisfactory." Should the candidate fail he may come up again after two sessions, and should he fail a second time he may try a third time; but this is his last chance, as under no circumstances may he be examined a fourth time. There is no minimum age-limit mentioned in connexion with the degree of *lékar*. Practically, however, as most boys leave the *gymnasias* about the age of eighteen, and as the curriculum extends over five years, this degree is usually taken at the age of twenty-three.

Having obtained the degree of *lékar* the graduate may at once proceed, if he wishes, to obtain the higher degree of Doctor of Medicine. This degree is still one of the "learned-practical" degrees; but should the new regulations, which have for some time been under the consideration of the authorities, come into force, it will be raised a step higher and become a purely "learned" (*utchenui*) degree. To obtain it under the present regulations it is necessary to have the lower qualification of *lékar*, to pass a written examination, and to present and defend a dissertation. The written examination consists of a paper containing two questions only. When this is satisfactorily passed the candidate may submit his dissertation to the approval of the faculty, and when that is gained he must print not less than 500 copies and lodge them with the university authorities. This is done at the candidate's own expense, and should the dissertation be of any length the expense is sometimes considerable. There is even some talk of increasing the number of copies required, at least in the Army Medical Academy in St. Petersburg (where 500 complete copies and 300 abstracts of the dissertation are now demanded), as the list of foreign and Russian universities and medical institutions to which copies of each dissertation are sent is an ever-increasing one. Appended to the dissertation must be a certain number of definite propositions or conclusions (*theses*), of which six at least must be purely medical in character. The public defence of the theses takes place at a meeting which is duly advertised, and which is freely open to the general public. Not only members of the university, but anyone present, may rise and controvert the statements or views of the candidate. As a rule, however, the three official "objectors" (*vozrazhateli*) appointed by the faculty are the sole speakers on these occasions. The result is announced immediately, and if the verdict is satisfactory the "faculty oath" is read and signed, and the candidate, now a candidate no longer, is an accepted Doctor of Medicine. In the rare case of rejection of a dissertation the candidate may come up again after an interval of not less than three or more than six months to defend either the same dissertation a second time or a newly written one.

Should the proposed new regulations for obtaining the doctorate become law considerable changes will be introduced into the method just described. Three years will have to elapse from the time the candidate has obtained the degree of *lékar* before he will be permitted to present himself for the higher one. He will then have to pass a fresh searching examination in all the subjects required for the lower degree, and this examination will be specially directed towards some one special branch of medical science chosen by the candidate. There are seventeen such branches of specialism named, but it is scarcely necessary to repeat them here.⁴⁰ The most important point is that practically under

⁴⁰ Vide THE LANCET, Oct. 26th, 1895.

these regulations the M.D. degree would in future be obtainable by specialists only. The dissertation would be required as now, but it would have to be presented within five years of passing the examination; failing this the examination would have to be repeated. It is still uncertain whether the new regulations as thus drafted will be ratified by the Medical Council.

The degree of Doctor of Medicine and Surgery is, as a matter of fact, very rarely taken. It is obtained in the same way as that of Doctor of Medicine, but the examination in surgery, theoretical and practical, is especially searching.

The conditions for obtaining the "learned-official" (*učcheno-sluzhebnyi*) degrees are adapted in each case to the special kind of knowledge which the holder of the degree will be likely to require in the particular office which the degree will entitle him to fill. Thus, for example, a candidate for the title of "district medical officer" (*uyezdnyi vratch*, vide Chapter VIII.) must have one of the ordinary medical degrees already described, and must pass a special examination in legal medicine, medical police, first aid, epizootology, and in the duties and social relations of a district medical officer. A candidate for the degree of "operator" or "accoucheur" to a *zemstvo* medical board must have the degree of *uyezdnyi vratch*, and must pass an examination in surgery or midwifery, as the case may be. An inspector of a medical board (*inspektor vratchebnoi upravui*) must have the degree of M.D., and have been in the public service for at least six years, and he must pass a very wide examination, not only in the special subjects just named as needed for the title of district medical officer, but also in medical law, State medicine, and medical administration, veterinary police, and pharmacognosy.

Of the "special-practical" (*spetsialno-prakticheski*) degrees little need be said here. A "dentist" (*dantist*) and a "dental surgeon" (*zubnoi vratch*) must pass a university examination before being permitted to practise. It may also interest many readers, particularly those who approve of a proposed Bill which has been the subject of much recent agitation in the medical world in England, to know that in Russia a midwife (*povivalnaia babka*) must be properly trained and pass an examination before she can follow her calling, and that this examination is conducted in the universities.

Before closing this account of the medical degrees conferred by Russian universities it is necessary to add that in Russia all druggists are by law compelled to pass an examination as to their fitness for such an occupation. There are three titles, those of "apothecary's assistant," "provisor," and "master of pharmacy" or "*aptekar*." An "apothecary's assistant" must have been a pupil for not less than three, or more than five, years in a recognised druggist's shop, not in a village, and must pass an examination. A "provisor" must have had the lower title for three years, must have attended courses of lectures on mineralogy, botany, zoology, chemistry, physics and pharmacology, &c., and must pass a written examination in these subjects. A "master of pharmacy" must first have obtained the title of provisor, and must pass a still wider examination in the subjects just named, and he must also present and defend a dissertation with at least six theses. The examination is largely practical, and includes chemical and medico-legal analyses. For veterinary surgeons there are also three titles of ascending value, those of "veterinary assistant," "veterinarian" (*veterinar*), and "master of veterinary science."

The following Tables contain interesting statistics of the medical faculties and degrees of the Russian universities (excluding Helsingfors). The figures are for the year 1895. They have been most kindly furnished by the Ministry of Public Instruction. The medical faculties of the universities have alone been referred to, to the almost complete exclusion of another great degree-granting body, the Army Medical Academy⁴¹ in St. Petersburg. The Imperial Academy of Military Medicine, to give it its full title, is intended mainly for the training of surgeons for the services. It is not, however, confined to this, and many civilian practitioners have gained their diploma or degree at the Academy. The curriculum here is practically the same

as at the universities, and so are the degrees and the mode of obtaining them. The large majority, however, of the students ultimately enter the army or navy medical services.

The Academy is older than any of the universities, with the exception of that of Moscow. It was founded by the Emperor Paul in the year 1798, and opened in 1800. Next year the centenary of its foundation is to be commemorated

TABLE I.—The Numbers of Students in the Russian Universities on Jan. 1st, 1896.

Universities.	Faculties.						Total.
	Theological.	Historico-philological.	Physico-mathematical.	Juridical.	Medical.	Eastern tongues.	
St. Petersburg	—	194	1085	1673	—	105	3057
Moscow	—	251	929	1587	1330	—	4147
Kharkof	—	39	150	376	800	—	1365
Kazan	—	37	131	185	451	—	804
St. Vladimir (Kief) ...	—	53	329	1020	1032	—	2434
Novo-Rossiisk (Odessa) ...	—	41	253	281	—	—	575
Tomsk	—	—	—	—	413	—	413
Yurief (Dorpat)	225	40	95	95	716	—	1171
Warsaw	—	29	137	347	453	—	966
Totals	225	684	3109	5564	5245	105	14,932

TABLE II.*—Medical Degrees and Titles conferred by the Russian Medical Faculties† in the year 1895.

University.	Medical degrees.				Other titles conferred after examination.					
	Doctor of Medicine.	<i>Učkar</i> (with honours).	<i>Učkar</i> (without honours).	District Medical Officer.	Master of Pharmacy.	Provisor.	Apothecary's Assistant.	Dental Surgeon.	Dentist.	Midwife.
Moscow ...	23	28	189	146	1	81	114	23	3	156
Kharkof ...	6	28	84	95	—	14	114	16	25	93
Kazan ...	3	44	26	16	—	12	52	—	4	157
Kief ...	2	21	147	5	—	22	47	30	20	20
Tomsk ...	—	17	43	—	—	—	—	—	—	—
Yurief ...	47	140	—	11	1	117	82	—	22	18
Warsaw ...	2	97	—	14	—	17	54	27	5	38
Totals ...	83	864	287	287	2	263	463	96	79	482

* It is necessary to note in connexion with this table that under the system of examination for degrees by Government commissions it is scarcely correct to say that such and such a university conferred so many degrees in any given year. Students may pass their examination in any university they choose, no matter where they have completed their curriculum. The above figures refer to students who obtained their degrees in the examinations conducted at the universities named. That they were not all students of the university where they passed their examination is shown by the following example: In Moscow (vide the report of the University for 1895) 174 Moscow students obtained the title of *Učkar* in the year 1895; but the total number of students who obtained the title in that year by examination in the Moscow University was 217. Confusion may easily arise between the two sets of figures.

† Only seven universities appear in this table, as there is no medical faculty in the University of St. Petersburg, nor was there one in that of Novo-Rossiisk, in Odessa, until last autumn. In 1896 the Army Medical Academy in St. Petersburg granted the title of *Učkar* to 136 successful candidates.

with all due solemnity in St. Petersburg, and in honour of the occasion a detailed history of the institution will be published, and is, indeed, already in course of preparation. Space will not permit here of more than a brief mention of some points in its history. The Academy has been successively under the Ministry of the Interior, under

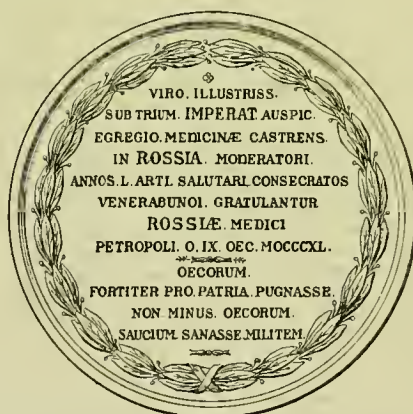
⁴¹ Voenno-Meditsinskaja Akademia; in rendering this "Army Medical Academy" it should be mentioned that the Russian words imply that both the military and naval services are included in the objects of the Academy.

that of Public Instruction, and finally, since 1839, under the Ministry of War. For many years, early in the century, its fortunes were closely linked with those of a distinguished Scotchman, Sir James Wylie, who for a quarter of a century occupied the honourable position of head of the Army Medical Department in Russia, and was practically the head of the whole profession in the country for that period. Wylie first went to Russia in the year 1790, when, after an examination, he was appointed surgeon to the Eletz Regiment. In 1798 he was appointed body surgeon to the Emperor Paul. The story of his having attracted the attention of the Czar by his successful treatment of a certain Count Kutaisof by lancing a large abscess in the neck after other surgeons had despaired of success—a story which gave rise to the saying that “Wylie had made his fortune by cutting a count’s throat”—may be taken for what it is worth. It is certain that he gained the confidence of both Paul and his successor, Alexander I., who promoted

at a charge of from 45 to 60 roubles per month. The medal, of which an illustration appears here, was struck on the occasion of Sir James Wylie completing his fiftieth year in the Russian service in the year 1840. For the loan of the medal and permission to reproduce it thanks must be given to a collateral descendant of the baronet now resident in St. Petersburg.

Since the death of Sir James Wylie the Army Medical Academy has always had for its president one of the most distinguished army surgeons of the day. The names of Pelican (1846–57) and Yenokhin (1857–62), to mention but two, are still remembered with honour. At present the Academy is under the presidency of Dr. Victor Pashutin, who is also President of the Medical Council, and as such occupies the most honourable position in the medical profession in Russia. It may be added that the present head of the Army Medical Department, which is now called the Army Medical Board (*Upravlenië*), over which Wylie

FIG. 11.



Medal presented to Sir James Wylie, Bart., Physician to the Emperor Alexander I., first Director of the Academy of Military Medicine, and Founder of the Wylie Clinical Hospital in St. Petersburg.

him to the highest honours in his power to give. In brief, Wylie in his time was the most prominent figure in the medical world in Russia. It was more particularly in the direction of improving the medical services of the army and navy that his professional activity found scope. The Napoleonic wars had given a stimulus to all departments of the army, and in 1811 the first Medical Department of the War Ministry came into existence. Wylie was its first director, and this post he retained until the year 1836. He took a prominent part in the campaigns of 1812 and 1813, and it was in recognition of this that, at the personal request of the Emperor Alexander, he obtained his knighthood, and later his baronetcy. He was knighted by the Prince Regent, who used the famous Cossack Platof's sword for the occasion, on board one of the Russian ships then lying off Portsmouth. In Russia his memory is perpetuated by the fact that attached to the Army Medical Academy, of which he was for many years the president, is a clinical hospital built from funds which he left for that purpose, and named after him. Its full name is the Michael Clinical Hospital of Baronet Wylie (pronounced in Russian *Vilië*), but it is more commonly known as the Wylie Clinique. It is not the principal clinical hospital of the Academy, but occupies three sides of a square, in the centre of which is a life-size statue of the founder on a high pedestal.⁴² The cost of erecting the hospital was 943,000 roubles (nearly £100,000); it was opened in 1873. It contains 150 beds, made up as follows: 40 medical, 40 surgical, 20 ophthalmic, 30 obstetric and gynaecological, and 20 for children's diseases; 120 of the beds are free, the remainder are occupied by paying patients,

presided for so long, is Dr. Alexander Remmert, the corresponding position in the navy being occupied by Dr. Vladimir Kndrin.

XI.

The University Cliniques in Moscow.—Their Origin—State and Private Generosity.—The Cliniques Described.—The Systems of Heating, Ventilation, Water-supply, &c.—The “Institutes.”—The Operating Theatres.—The Hospital System in Russia.—Hospitals in Town and Country.—The “Hospital Statute.”—The Medical Staff of Hospitals.

PRIVATE munificence and State and municipal liberality have combined to produce in Moscow one of the largest and best-equipped series of cliniques attached to a university to be found in Europe. Until some ten years ago the clinical work of the Moscow students was carried on in two large hospitals, the old and new Catherine (*Staraia- and Novaia-Ekaterinskaiia*) Hospitals, in the centre of the town and not very far from the University buildings. But as far back as 1873 the need of wider accommodation for patients and of more modern clinical facilities for the professors and students had made itself felt, and in that year an elaborate scheme for a new clinique was proposed by one of the professors and submitted to the University authorities. It was warmly approved of by the medical faculty, but was for some reason rejected by the University Council, and consequently the scheme for a time came to nothing. But only for a time; nine years later it was revived at a more auspicious moment in consequence of the generous offers of two wealthy ladies, Mesdames Pashkalof

⁴² The following is a more detailed description of the statue. The pedestal is of grey marble, the figure is seated, and holds in one hand the reformed statutes of the Academy; caryatids adorn the angles of the pedestal, and between them are bas-reliefs representing incidents in the life of Wylie. His coat of arms and that of the Academy also appear.

and Morozof, who announced their readiness to provide funds for building two special clinics, one of forty beds for obstetric cases and one of sixty beds for the treatment of nervous diseases. This was really the first step towards the realisation of the wishes of the medical faculty for new clinical buildings. In 1883 the University obtained authority to sell the ground and buildings of the old clinique, and to employ the sum thus realised towards the erecting of a new one. A commission was formed to carry out the scheme, and this commission was presided over by Professor Sklifosovski, the president of the organising committee of the International Congress about to be held in Moscow.

In the autumn of 1884 the municipality of Moscow most generously ceded to the University a large space of vacant ground on the *Diévitché Polé* (or "Field of the Virgin") as the most suitable site for the new clinique. The ground thus ceded was very nearly forty-five acres in area, and at about the same time this was increased by another most opportune gift of adjoining land. The second gift of land was due to the generosity of Madame Morozof, one of the ladies already mentioned, who had offered to build at her own expense a hospital of sixty beds for the treatment of nervous diseases, and who now presented the University with over fourteen acres of land upon which to build it. The Commission was thus relieved of one great difficulty and expense, that of finding an appropriate site for the new buildings. Matters now moved forward rapidly. A small committee of three, consisting of M. Bikovski, the architect of the University, and Professors Szélfref and Eismann, was sent abroad to study some of the principal foreign university clinics. They visited Munich, Zürich, Berne, Strasburg, Heidelberg, Leipzig, Halle, Berlin, and Paris, and on their return a detailed scheme of the new buildings was drawn up. It was found that to carry this out completely a further sum of two and a half million roubles—that is to say, over £250,000—would be required; while even if only the most essential parts of the scheme were executed a sum of at least 1,711,000 roubles would have to be asked for. Ultimately, in the spring of 1886, the Government gave a grant from the treasury of 2,150,000 roubles, or about £220,000, for the purpose of building the new clinique. But the generosity of the State and of private individuals was not yet exhausted. In 1887 the Government voted an annual sum of 30,000 roubles for the endowment of the Psychiatric Clinique; in 1889 it granted two annual sums of 15,750 and 16,880 roubles respectively, for the Obstetric and Gynecological Cliniques; and finally in 1890 the Council of State consented to grant in full the demands of the University for the furnishing and equipment of all the other clinics and laboratories, and, with very slight reductions, to endow them with the sums asked by the University authorities. The most striking examples of private munificence, in addition to those already mentioned, have been the gift from M. Solodovnikov of funds to build the Clinique of Dermatology and Syphilis, the erection by Madame Bazanof of the Clinique for Diseases of the Ear, Throat, and Nose (at a cost of 515,000 roubles), and the donation of 70,000 roubles from Madame Barbe-Alexéief for the construction of the general outpatient department. Many of the clinics bear the names of their generous founders.

It has been necessary to enter into some detail with regard to dates and figures, at the risk of appearing tedious, in order to give the reader some idea of the scale upon which the scheme of providing the first of Russian universities with adequate clinical accommodation has been conceived and carried out. From first to last, not far short of half a million sterling must have been expended upon it, while the annual grant from the State Treasury is considerably over 415,000 roubles (about £43,000). The buildings, which were erected from the designs of M. Bikovski, the architect of the University, and MM. Goedicke and Strom, of St. Petersburg, cover a space of ground measuring 3920 feet from N.E. to S.W. and 525 feet from N.W. to S.E. The "Field of the Virgin" upon which they stand is a large irregular open space, taking its name in all probability from the New Convent of the Virgin (*Novo-Diévitchi Monastyr*) close by. This striking and picturesque mass of ecclesiastical buildings, surrounded by high walls like some mediæval fortress and surmounted by a characteristic dome-capped tower, is one of the most interesting of the innumerable monasteries and convents in and around Moscow. It was founded in 1524 to commemorate the capture of Smolensk by the Russians from

the Poles. The buildings of the clinique are about twenty minutes' drive from the Kremlin, which for practical purposes may be regarded as the centre of Moscow. The drive is a pleasant one—past the Temple of the Saviour, the immense cathedral with white walls and monster gold dome, built in memory of the famous incidents of 1812; along the *Pretchistinka* street, passing many of the small gaily-tinted churches and pleasantly gardenized villas, which are as characteristic of Moscow as they are unlike the churches and houses of the more modern capital on the Neva; and finally, along one side of the "Field of the Virgin," by the Great Tsaritsyn-street (*Bolshaya Tsaritsynskaya*) until the clinique itself is reached. The convent makes an admirable landmark for the stranger uncertain of his way to aim at; and at a very short distance beyond are the famous Sparrow Hills, from which Napoleon first saw the gold roofs of Moscow, and which still afford the finest views to be had from anywhere of this wonderful city.

The clinical buildings nearest the town are those of the Psychiatric and the Ear, Throat, and Nose Departments; but as these lie off the main road to the left they will not at first be observed. The first clinical buildings which catch the eye are a series of two-storeyed, yellowish-white buildings on the right, running partly at an angle and partly parallel with the main road (see Fig. 5); and a taller, more ornate, red-brick structure on the left. The latter is the Children's Hospital, better known in Moscow as the Khludof Hospital, in honour of its founder, M. Khludof, who left a sum of half a million roubles (over £50,000) for the purposes of building such a hospital (see Fig. 10). Of the buildings on the right side of the road the first is a block containing the Obstetric and Gynecological Cliniques, lying at an angle of 45 degrees with the main road, and quite close to the Church of St. Michael the Archangel, the church attached to the clinique (see Fig. 8). Continuing along the Great Tsaritsyn-street, and still on the right-hand side, will be found the Faculty Cliniques, medical and surgical, a two-winged building with a common entrance in the centre. It is the open space in front of this entrance which has been chosen as the most appropriate site for the statue of Pirogof, the unveiling of which is to form one feature of the congress week. Some distance further on is an almost identical building, containing the surgical and medical hospital clinics. (The difference between a faculty clinique and a hospital clinique was explained in a previous chapter.) Still further is the Clinique for Skin Diseases and Syphilis, a handsome building of quite different architectural character from those already described. It is easily recognised by its corner-wise position and its brilliant white colour; it consists of a central block with Corinthian columns ornamenting its face, and two wings, one parallel and the other at right angles with the main road. The end of the "Clinical Townlet" (*Klinitcheskii gorodok*), as this great series of hospitals is familiarly called, is now almost reached in this direction. Lying back from the main road on the right may be seen a side view of the Institute of Pathological Anatomy, which will be mentioned again later; and beyond this are the four detached "barracks" for the reception of children suffering from infectious diseases. This completes the list of buildings in the Great Tsaritsyn-street. Behind and running nearly parallel with it is a second series, divided from the first by another street, which, as it is not a public thoroughfare, but the exclusive property of the clinique, has not received any name. Following this road and taking the second series of buildings in the same order as the first, it may be said to begin with the Institutes of Hygiene, General Pathology and Pharmacology, all in one block, situated directly behind the Faculty Cliniques. Next to this are a number of important and useful, if less interesting, institutions—the kitchen, laundry, disinfection chambers, artesian wells, and water-tower. Still further along are the Propædæutic Wards (i.e., the preliminary clinical wards for the instruction of third-year students in the elements of clinical observation) and the Ophthalmic Hospital. A long stretch of garden is now reached, in which are some of the professors' residences and a block of dwellings for the servants and attendants. Directly facing the end of the road and bringing it to an abrupt termination is the façade of the Institute of Pathological Anatomy (already briefly mentioned), and in this same block of buildings are contained also the Institutes of Legal Medicine and of Operative Surgery.

The number of beds made up in the various hospitals that have been just enumerated is as follows:—

Name of Clinique.	Professor's name.	Number of beds.
Surgical Faculty Clinique...	Professor Bobrof ...	80
Medical " " " "	" Popof ...	67
Surgical Hospital " " " "	" Sintzin ...	83
Medical " " " "	" Ostroumof ...	82
Nervous Diseases " " " "	" Kojevnikof ...	44
Propædæutic " " " "	" Tcherinof ...	48
Ophthalmic " " " "	" Krukof ...	34
Contagious Diseases " " " "	" Filatof ...	32
Psychiatric " " " "	" Korsakof ...	50
Obstetric " " " "	" Makéief ...	40
Gynæcological " " " "	" Snégiref ...	40
Dermatological " " " "	" Pospîélof ...	60
Throat, Ear, and Nose Clinique	—	15
Total	675

It will be impossible, and it would, in fact, be superfluous, to describe here in detail all the wards, laboratories, lecture theatres, operating and dressing theatres, waiting-rooms, microscope rooms, Roentgen-ray rooms, bath-rooms, and offices—in a word, all the component parts of one of the completest of modern cliniques. Members of the Congress will have frequent opportunities during their stay in Moscow of seeing these for themselves, for clinical demonstrations will be held almost daily, and many of the sectional meetings of the Congress will take place in the theatres of the clinique. But some general impressions and notes gathered on the occasion of two visits to this city of the sick, and supplemented by the detailed information in the official description of the clinique published specially for the members of the Congress (for advance proofs of which thanks are due to the courtesy of Professor Klein, Dean of the Faculty of Medicine), may be of interest.

The various cliniques, general and special, differ to some extent in details, but the general principles upon which they are constructed are common to them all. They are all built on the system of separate blocks with lateral corridors. In the wards an air space has been allowed of 1489 cubic feet (45 cubic metres) per patient. The height is 14 ft. (6 *arshins*), and consequently the floor area for each bed is just over 100 square feet. In almost all the cliniques there will be found on entering a large hall or vestibule, where coats, hats, and sticks are left in charge of a *suissé*. This may seem an unnecessary statement to make, but it may not be known to some who have not visited Russia previously that on entering any building whatever, be it to make a call of only two minutes' duration, it is the unalterable custom to leave the overcoat as well as the hat and stick or umbrella in the hall. To enter a Russian dwelling-room in an overcoat is scarcely less discourteous than to enter it with one's hat on. A few steps usually lead up from the hall to the ground-floor corridor, off which lead the wards and other rooms and offices. The corridors, 12 ft. in width, are features of all the cliniques. With their colour-washed walls of cream or pale blue and dado of oil-paint, with their polished oak parquet-floors, their large double windows, their comfortably warmed and artificially moistened air, and their polished pine-wood tables and benches (for the patients take their meals here), these corridors present a distinctly attractive appearance, and serve as excellent promenades for patients who are not confined to their beds. Here, as in the wards, all angles of walls, floor, and ceiling have been well rounded off to prevent lodgment of dust. A word may also be said of the broad stone staircases leading to the upper storeys, upon which, in many instances, will be found a second large vestibule or landing hung with lavishly-framed portraits of members of the Imperial family or of the "donors" of the particular clinique. The first impression upon entering the wards is one of comfort and cheerfulness. The wards are for the most part small, rarely containing so many as a dozen patients in each. The beds stand at some distance from the walls, and, at least in some wards, each of the legs of the bed is inserted into an india-rubber cup, which materially lessens the chances of jarring and external shocks. The clean white blankets are a pleasant change from the grey blankets met with in most Russian hospitals. The walls are treated in the same way as those of the corridors, and the floors are of the same oak parquet, which is thought to be as hygienic as any other material, and is certainly the most pleasant-looking of all hitherto suggested

for this purpose. In all the cliniques the professor has a most comfortable and even luxurious private cabinet. In that of Professor Pospîélof, the courteous professor of dermatology, and probably in others, are two articles of furniture deserving of mention. One is a neat disinfecting chamber in which the professor's blouse (large white blouses are worn by all the staff when at work) or coat can be disinfected by dry heat in a very short time. The other is a washing-stand of French manufacture, consisting of a light plated-steel frame on rubber-covered wheels, and supporting a plate-glass basin and reservoirs for water and disinfecting solutions. It appears to be the perfection of a hygienic washing apparatus.

The wards and all the other parts of the cliniques are artificially heated by hot-water pipes sunk in the lower part of the walls. The pipes in the wards are about two inches in diameter (some of the main pipes are as broad as eight inches), and at intervals the heating surface is increased by a number of square transverse plates or wings of metal at right angles to the pipe. The water is heated by naphtha furnaces in special out-buildings. Ventilation has been carefully provided for. The foul air is artificially extracted through openings, in all cases as near the floor as possible; fresh air, warmed and moistened by a specially designed and somewhat elaborate apparatus, is admitted through griled openings about two-thirds of the distance up the walls. In summer the large windows (of double parallel sashes 8 in. apart, like all windows in Russian buildings) can be opened and allow of a very thorough aeration of the buildings; but in a climate like that of Moscow some carefully-planned system of artificial ventilation, such as the one here briefly described, is a necessity in the long and intensely cold winter. It is but fair to add that in a visit paid to several of the cliniques late in November there was no perceptible stuffiness or draughtiness—the Scylla and Charybdis of all artificial systems of ventilation—in any of the wards; on the contrary, the air felt pleasantly warm and at the same time fresh and sweet. It is almost superfluous to state that the electric light is laid on in all parts of the clinique. The water-supply is derived from an artesian well, and a second such well is now being bored to increase the supply. The present yield of the one well is about 78,000 gallons daily. The clinique as a whole has a system of drains and sewers of its own; the sewage is carried to a large plot of land, the property of the clinique, near the banks of the River Moskva, where it is employed for purposes of irrigation.

It is impossible to close these notes upon the clinique without some reference to the fine series of operating theatres, laboratories, and lecture theatres which it contains. The so-called "Institutes," whether of Hygiene, Anatomy (see Fig. 9), or any other branch of medical science, are goodly-sized buildings containing series of well-fitted laboratories (bacteriological, biological, chemical, physical, &c.), and large lecture theatres, museums, and libraries. But there are also theatres and laboratories, and in many cases small libraries and museums, attached to the clinical buildings as well. Most of the cliniques have rooms for carrying out microscopical, bacteriological, and chemical investigations in connexion with the cases under treatment, and all have lecture theatres. The lecture theatre is generally a room well lighted from the top, and with seats for 200 or 300 students arranged in the usual amphitheatre fashion. There are many operating theatres, not only attached to the surgical wards proper, but also in some of the special departments, as, for example, the Ophthalmic, the Dermatological, and the Obstetric and Gynæcological Cliniques. As they are all more or less alike in general principle the operating-rooms of the Surgical Faculty Clinique may be taken as good typical examples. This clinique was formerly under the charge of Professor Skifosofski, and is now in the hands of Professor Bobrof. There are two operating theatres attached to it—a large and a small—the latter known as the "Laparotomy Theatre," but in reality reserved not only for laparotomies, but for all operations which involve the opening of the great cavities of the body. The large operating theatre is horseshoe-shaped, and having a large gallery in addition to the amphitheatre of seats can accommodate nearly 300 spectators. The floor is of asphalt, painted with oil paint. The table is lighted by an immense window behind it, measuring about 24 ft. in height and 13 ft. in width; this window, instead of being double like other windows is triple, a hot-water pipe passing between the two outer sashes to warm the air between them in winter. The principal articles

of furniture in the theatre are two plate-glass cupboards for the instruments; a glass table upon which to place those used during an operation; a marble basin in which to wash them after the operation; a long marble table for the dressings and other apparatus; two vessels for sterilising the instruments by means of boiling; sterilisers for preparing the aseptic dressings; and high stands for the antiseptic or aseptic solutions. The operating tables are quite simple, are constructed of either wood or zinc, and move absolutely noiselessly and imperceptibly upon rubber-covered wheels. The patient is anaesthetised in a separate room outside the theatre, and it may be added that chloroform is the anaesthetic most often employed. The so-called "Laparotomy Theatre" is much smaller than the large theatre, and students are admitted to the operations here in groups of not more than twenty at a time. There are no seats, but the floor is raised a few feet round the central space reserved for the operator and his assistants. The temperature is kept constant at 18° R. (72.5° F.) when operations are being performed. Admission to the wards of the clinique is not quite free; patients in the general wards pay a small fee of 9 roubles (less than £1) per month. Those in private wards pay from 50 to 150 roubles (roughly from £5 to £15) a month. The professors, however, have discretionary powers to admit deserving cases to the general wards without charge, provided that the number thus admitted does not exceed 40 per cent. of the total number of patients.

It may interest some readers to add here a few words as to the method by which hospitals, as a rule, are supported in Russia. It is the rare exception, if indeed any such exist, to find a hospital dependent upon the voluntary contributions of the public. In the towns the hospitals are generally supported by the municipalities. A tax of about a rouble or a rouble and a quarter per annum is levied upon all persons below a certain social position—that is to say, roughly, upon all persons of the labouring classes and servants—and this entitles those who have paid it to free treatment in the municipal hospitals. The tax is easily gathered, as under the system of passports prevailing in Russia every person's passport must be stamped by the authorities once a year, and at that time the hospital tax is paid. There is at present some talk of altering this system in St. Petersburg. It is proposed in this city to levy a general tax of 2 roubles a year upon every citizen in support of the hospitals, but the proposal is already meeting with some opposition. In the smaller towns and in the country a sufficiency of hospital accommodation is guaranteed to the artisan class by an Imperial ukase of the year 1860, in accordance with which all factories and large trade establishments are compelled to maintain small hospitals providing at least one bed to every 100 workmen, and the proprietors are forbidden to take pay of any kind from the workmen in support of the hospital. This law, however, does not apply to the capitals or to Warsaw, and it has been pointed out in a recent controversy on the subject that this tells rather unfairly on the working classes in these cities, for they are compelled to pay a hospital tax, while their fellows in the provinces are exempt from it. In the country generally the hospitals are supported by the *zemstvos* of either "government" or "district"—those local governing bodies to which frequent reference has already been made in these notes.

All these hospitals, whether supported by the State, by municipalities, or the *zemstvos*, whether founded by the charity of private individuals or by one of the great central charities briefly alluded to in an earlier chapter, are administered on the same principles—the principles laid down in the "Hospital Statute" (*Ustav léchebnykh zavédinii*) of 1893. Under this Statute hospitals which take in more than 15 patients are divided into four classes, according to the number of beds they make up. Those with more than 300 beds belong to the first class; those with from 101 to 300 beds to the second class; those with from 61 to 100 to the third class; and the fourth class includes those with from 16 to 60 beds. The exact mode in which the institution is to be conducted, the duties of each member of the staff, the method of admitting patients, and many other matters, are defined with much exactitude in the Statute. Without venturing to enter on the impossible task of trying to compress into a small space all the complicated details of a Statute such as this, it may suffice to mention one or two facts relating to the medical staff.

The management of a Russian hospital is, to a very great

extent, concentrated in the hands of the so-called *glavnyi vrach*, or "head physician," a title which does not at first sight indicate what the manifold duties and responsibilities of such an office really are. The "head physician" has not only the entire control of the medical details of the hospital, but all administrative and domestic matters in connexion with it are under his direction. The office is, as a rule, only attained by comparatively senior men; the work it entails in a hospital of any size is very arduous and the responsibility great. The *glavnyi vrach* always lives within the precincts of the hospital and is the real mainspring of the institution. In hospitals of the first three classes he is assisted by a hospital board (*pravleniye bolnitsy*), which consists of two of the medical men on the staff, who serve in turn, and the superintendent. The medical staff consists of "consultants," "senior" and "junior staff doctors" (using the word "doctor" as including physician and surgeon), and "ward doctors" (*palatnyi vrach*) corresponding to house physicians and house surgeons. Hospitals of the first two classes have a "prosector," or pathologist, and a superintendent (*smotritel*), who has charge of the domestic arrangements and is responsible for all the stock of the hospital, except the surgical instruments. The *feldschers* have already had a chapter devoted to themselves. It only remains to mention the nurses. A great part of the nursing is done by the *feldschers*; they attend the physician or surgeon at his examination of the patients, enter his orders in a book, and transmit them to the nurses proper; they do most of the dressing of the minor surgical cases, and many of the other duties which we are accustomed to see performed by the nurses are performed by the *feldschers*. The nurses are, as a rule, called "sisters of mercy" (*sëstra miloserdii*), a title which does not, however, imply that they have taken vows or are members of any religious sisterhood, though many are attached to the Red Cross Society or other analogous associations. They are assisted in some of the rougher work of the wards by female ward attendants, known as *sidielki* (from *sidiët*, to sit), who may be defined as half nurses and half servants.

XII.

Russian Medical Celebrities of the Present Century.—The Lives of two selected.—Outline Biographies of Pirogof and Botkin.—The Pirogof Medical Society.—The Pirogof Statue in Moscow and Museum in St. Petersburg.—The Botkin Hospital and Journal.—Conclusion.

IN the history of medicine in Russia during the present century, which has of necessity been somewhat disconnectedly told in these pages, the names of many distinguished Russian physicians and surgeons are met with, whose services to the profession should entitle them to more than a mere passing mention. Such were Pirogof, Inozemtzev, Dobroslov, Pelican, Tchistovitch, Zdekauer, Botkin, and others, to name only those who are no longer living. It is impossible here to give a detailed notice of their lives and labours; and exigencies of space will permit of a brief account of two only, the two whose names open and close the list just given and who have, perhaps, gained a wider reputation outside their own country than any of the others mentioned.

The fame of Nicolai Ivanovitch Pirogof is assured perpetuity from the fact that his name is associated with a certain operation which he devised and practised. To most Englishmen he is probably known solely as the originator of a mode of amputating the foot; but he has, in truth, far wider claims to recognition. He was not only a great anatomist and surgeon, but he was also a most capable administrator—reformer in the best sense of the term—and an interesting and thoughtful writer. More than this, he was the first to use anaesthetics widely in military surgery; he foreshadowed the modern system of ambulances, Red Cross Societies, and aid to the sick and wounded in time of war, and he introduced nursing by women into Russian hospitals, military and civil. The facts of his life may be briefly told. Pirogof was born in 1810; he was the son of an official in the commissariat department of the army. He entered the University of Moscow at the age of fourteen, and he was only seventeen when he obtained the title of *Ukar*. He at

once entered the "Professorial Institute," a kind of college which then existed for the preparation of young graduates who intended to aim at a professorial chair. Even for those times this was an extraordinarily quick career and an unusual position for one of his years. Subsequently, he was for four years Professor of Surgery at Dorpat, and in 1840 he was appointed to the chair of Hospital Surgery in St. Petersburg. He soon became one of the leading consultants of the day in the capital.

FIG. 12.



Nicolaus Pirogof, the great Russian Anatomist and Surgeon.

In 1847 the use of anæsthetics during surgical operations was introduced into Russia and the first operations performed under ether were performed by Pirogof. He published the results of his experiences with the new method in an essay, written in French, and this came to the knowledge of the Emperor Nicholas I. Russia was then at war with the Turks, and the Czar—to his eternal honour be it recorded—at once commanded Pirogof to proceed to the seat of war in the Caucasus and test the practicability of employing anæsthetics in the field hospitals. Pirogof seems to have been the first great surgeon to employ anæsthesia largely on the battlefield. He published an account of his work in this campaign in a book called "Rapport d'un Voyage au Caucase," issued in 1849. In 1848 occurred the great epidemic of cholera, the worst of the century. Pirogof, who was a keen pathologist as well as an anatomist and surgeon, made as many as 800 necropsies upon the bodies of patients who had died from cholera. Shortly afterwards he published his valuable work on "The Pathological Anatomy of Asiatic Cholera." From 1849 to 1852 he was busy in his work as professor, as director of the Anatomical Institute, and as consultant to six of the large city hospitals. The "Annals of a Hospital Clinique" was his principal literary labour at this time; and it was in this periodical, which was printed in German, that he first described the operation which has since borne his name. In 1854 his splendid Anatomical Atlas appeared, and shortly after this he was sent to the seat of war in the Crimea. He inspected all the field hospitals on the Russian side, and was himself in charge of the barrack hospitals at Simpheropol. He has left a vivid, if harrowing, description of the sufferings of the troops in the intense cold of the Crimean winter. It was his experience here, and his recognition of the many unnecessary and preventable horrors of war, which led him to propose the reforms in the direction of aid to the wounded which have already been briefly alluded to. Soon after the war he published a series of interesting and suggestive essays under the title of "Questions of Life," and among the "questions" there discussed the problems of education in its widest sense were treated at perhaps greater length than any others. It was probably the views he there expressed that led to his selection by the Emperor Alexander II. for the appointment of Curator of the Odessa Educational District—a post the nature of which was explained in an

earlier chapter. After a short period he was transferred to the same appointment in the Kief district; but unfortunately his views on the relationship existing between the universities and the Government did not coincide with those of the Minister then in power. It was about this time that he published his long pamphlet upon "The University Question," in which he claimed for the universities and for the students greater freedom of literary and scientific discussion and fuller powers of self-government than they then had. The pamphlet was prohibited, and Pirogof felt himself in honour bound to resign his appointment.

In 1870 he went as the representative of the Russian Red Cross Society to the Red Cross Conference in Berlin, and at the same time he took the opportunity of inspecting a large number of the field hospitals on both sides in the Franco-Prussian war. He has left a description of this tour in a work published in St. Petersburg in 1871. Six years later the Russo-Turkish war broke out, and in September, 1877, Pirogof, though he was then sixty-seven years of age, was sent to Rumania by the Russian Red Cross Society. His experiences of this war were also published in book form on his return to St. Petersburg. In 1881 he completed his fiftieth year of public service, and although his health had already begun to fail he could not refuse the invitation of his Moscow colleagues to attend a festival organised in Moscow in his honour to commemorate the occasion. He himself knew at this time that he had not many months to live, though he hid the fact from others that he was suffering from malignant disease. He died four months later, on Oct. 27th, 1881.

Intending members of the Congress about to meet in Moscow may be glad of this outline, however brief, of the life of Pirogof, for his name will be on many lips at that time. During the Congress week in Moscow his statue, which has been raised in front of the university clinics, is to be formally unveiled; and in the following week in St. Petersburg the new "Pirogof Museum," attached to the Army Medical Academy, the nucleus of which is the splendid anatomical and surgical collection made by Pirogof himself, will be officially inaugurated.

FIG. 13.



Professor S. P. Botkin.

Sergé Petrovitch Botkin was Pirogof's junior by many years, but their lives touched at many points. He was born in Moscow in the year 1832, and was a graduate of that University. He had not long taken his degree when, in 1854, he was commanded to the Crimea with Pirogof, where he was placed in charge of the "typh" wards—the word "typh" including all cases of both typhus and typhoid fevers. His defective eyesight, from which he suffered all his life, unfitted him for the practice of surgery, and he henceforth devoted himself entirely to the medical side of the profession. After the war was over he spent some years abroad, studying under Virchow, Rokitsanski, Hoppe-Seyler, and others. He returned to Russia in 1860, and was shortly afterwards appointed to the Faculty Chair of Clinical Medicine in the Army Medical Academy in St. Petersburg. His career in the

capital was for many years one of unbroken success. He soon attained the position of the foremost consulting physician in the City. In 1872 he was appointed physician to the Court and accompanied the Empress Marie Alexandrovna, who was then ailing, to the Crimea, which he had before visited under such very different circumstances. It was in the same capacity of *leib-medik* that in 1877 he went in the suite of the Czar to the seat of war, and he has left some interesting reminiscences of what he saw of the Russo-Turkish campaign. In the following year occurred the outbreak of plague on the lower reaches of the Volga. A case presenting some suspicious symptoms was admitted into Botkin's wards in St. Petersburg, and in an unfortunate moment he let it become known that he regarded it as a mild case of plague. Something like a panic occurred in the city, and it has been necessary to record the incident here, for the storm which in consequence broke over Botkin's head and the gross and unfounded charges made against him of having spread the rumour to suit his own private ends told seriously upon his health. He suffered severely from attacks of angina; and later hæmoptysis appeared. He tried many health resorts, Russian and foreign, to gain relief, but with very partial success. His reputation in St. Petersburg had been little shaken by the incident just related, and he continued to occupy his honourable position in the profession until his death. He died at Mentone on Christmas-eve, 1889. His literary works included many essays on various clinical subjects and upon matters connected with public health. It should be added that he was the first medical member ever elected to the St. Petersburg municipality, and that he was president of the Commission appointed by the Government in 1886 to inquire into the sanitary condition of the empire and the means for improving it.

The names of both Pirogof and Botkin have since their death been attached to certain institutions founded to commemorate their labours in the cause of medicine. Even before Pirogof's death the proposal was made to form a

medical society which should bear his name. Under the title of the "Society of Russian Practitioners in Memory of Pirogof" this has since become the most representative of all Russian medical societies. Conferences lasting eight days are held under its auspices, at intervals of from one to three years, in one of the capitals or more important provincial towns; and these meetings are attended by large numbers of medical men from all parts of the empire. The society is, in fact, in not a few points closely analogous to the British Medical Association.

The memory of Botkin is perpetuated by the name of one of the most important of the municipal hospitals in St. Petersburg, known as the "Barrack Hospital for Infectious Diseases in Memory of Botkin," and by the fact that a medical journal is published weekly in St. Petersburg under the title of *The Botkin Hospital Gazette* (*Bolnitchnaia Gazeta Botkina*).

With this condensed account of the life and work of two great representative Russians, surgeon and physician respectively, the present notes upon the past and present of medicine in Russia may fitly come to a close. The lives just told may be taken as types of the lives, *mutatis mutandis*, of the Russian physicians and surgeons of to-day, with many of whom Englishmen who go to the approaching Congress will have an opportunity of becoming acquainted, but of whom it would be an impertinence to speak here in terms of eulogy. Brief *curricula vite* of some of the more distinguished Russian medical men of the day, more particularly of those officially connected with the Congress, have already been given in the notes upon the Twelfth International Medical Congress. But if living individuals may not be praised, living institutions may; and of the medical institutions of Russia it may truly be said that they are worthy of the great country which has given them birth, of the great people by which they are supported, and of the great profession which has brought them to their present admirable state of development.

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